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THE EASTER HOLIDAYS.

WE shall publish THE CHEMIST AND DRUGGIST a day earlier than usual next week, in consequence of the Easter holidays. Exchange Column and general advertisements cannot be received later than Wednesday morning, and advertisements of situations open and wanted, businesses for disposal, and others inserted in the Supplement must reach our office by 5 P.M. on Wednesday.

POSTCARD COMPETITION.

MARCH, 1894.

THE photographic season is coming on, and there is a chance of good business for chemists. What are the best things to stock? We believe that there are many in the trade who can answer that question. We should like them to jot down on postcards a dozen articles which, in their experience, are best to put into stock. The list can be put in something like the following manner:—

London's quarter-plate camera.

Manchester's hand-camera.

Liverpool's lenses.

Birmingham's developing-dishes.

Newcastle's rcd lamp.

Edinburgh's developer.

Dublin's dry plates.
Brighton's changing bag.
Glasgow's bromide paper.
Belfast's sensitised paper.
Brighton's shutter.
York's photographic guide.

We have used names of towns in place of names of firms, but the above must be taken merely as examples. There are apparatus and chemicals to be named which are in request, and which the chemist should stock. It is these we want to get at, and which competitors should simply name. Subscribers, their assistants, or members of their families may compete. We shall give at least a guinea to the postcard received which nearest accords with the general vote.

Summary.

THE death of a chemist's son from strychnine poison is reported (p. 373).

THE arrangements for the meeting of the British Association at Oxford are mentioned on p. 374.

MR. JOHN BAROLAY replies on p. 298 to Mr. Liverseege's criticism of his paper on Saffron Standards.

WE report a lecture on coca-cultivation by Mr. Clements R. Markham, F.R.S., at the Imperial Institute (p. 390).

PROFESSOR DUNSTAN gave a lecture to the Pharmaceutical Society on Wednesday on "The Aconite Alkaloids" (p. 381.)

Some useful dispensing points were brought before the Edinburgh Chemists' Assistants' Association, and will be found on page 379.

THE death is recorded this week of Mr. Henry Ayscough Thompson, a well-known manufacturer of pharmaceutical preparations (p. 391).

THE London Chemists' Assistants' Association had their annual dinner last week, under the presidency of Mr. Idzis, J.P., L.C.C., at Cannon Street Hotel (p. 379).

THE manufacture of benzo-purpurine has brought a-Bradford merchant to prison. He had submitted to an injunction in 1891, but had failed to obey it (p. 383).

A BIRMINGHAM chemist has been fined for selling some tincture of rhubarb not up to standard. The defence was that tinct. rhei co., P.L., had been supplied by accident (p. 383).

An uneventful meeting of the Irish Pharmacentical Council is reported on p. 378. A letter from the Registrar of the Royal College of Physicians, Ireland, confirms the announcement that licentiates will not in future te disable? from ke ping open shops.

WE publish portraits of Dr. James Bell, the Somerset House chemist, who has just retired; of Professor T. E. Thorpe, who has been appointed in his place; and of Mr. Richard Bannister, who has been for many years Dr. Bell's, and is now Professor Thorpe's, deputy (p. 391).

A DISPUTE about the analysis of some eucalyptus oil has been heard in the City of London Court. The defendants alleged that the analyst had reported that samples from the same tin contained 2 and 67 per cent. of eucalyptol, but their evidence on this point was insufficient, and a verdict was given for the analyst (p. 384).

Mr. A. H. Allen, as West Riding analyst, publishes officially his views on the vinegar question (p. 391). He also chooses this occasion as a suitable one for advocating that the Local Government Board should establish a chemical department to supersede the Somerset House laboratory for the reference of disputed analyses under the Sale of Food and Drugs Act (p. 374).

THE chemist's assistant who lately brought an action against the managing director of some drug-stores at West Bromwich, alleging that he had fraudulently represented himself to he a chemist, and had thereby induced him, the plaintiff, to leave his situation in London and take service with the defendant, has appealed against the County Court Judge's decision, but the Divisional Court has supported it (p. 384).

A Norwood Magistrate has given a lengthy lecture to a chemist's assistant, who had sold some oxalic acid to a servant-girl, who tried to poison herself with it. She told the assistant that she wanted it to clean brass with, but the Magistrate thought he ought to have made more inquiries. His own accuracy was illustrated by the fact that he assumed oxalic acid not to be a scheduled poison, which he said "was a great blunder" (p. 374).



CONDUCTED BY RICHARD J. MOSS, F.C.S., F.I.C.

QUALITATIVE ANALYSIS.

A MIXTURE of not more than three salts will form the subject of the next exercise in qualitative analysis. It is to be submitted to a thorough systematic examination, all the constituents of the mixture are to be detected, and proof given that the substances detected are the only constituents.

Students' applications for portions of the mixture of salts (accompanied by astamped and addressed envelope, not a stamp merely) will be received up to Wednesday, March 21, and the samples will be forwarded immediately. It should be understood that in this, as in all other competitions, The Chemist and Druggist recognises no distinction of sex.

Students' reports will be received up to Saturday, March 31. Each report should contain a concise account of the work done, and should include a list of the constituents detected. In this list any substance regarded as an accidental impurity should be distinguished from the essential constituents of the salts of which the mixture is composed.

REPORTS.

The subject of the last exercise consisted of 2 parts of lead acetate, 2 parts of sodium pyroborate (fused), and 1 part of potassium nitrate. Its calculated composition was:—

Γ^{ij}	• •	• •	٠.	• •		• •	21.85
K			• •	••	• •		7.72
Na		• •					9.11
$-\mathbf{B}_{\mathbf{t}}\mathbb{C}_{T}$	• •	• •	• •			••	30 89
N_{i+1}	• •		• •				12:28
$O_t H_t$	1,					• •	12:45
H,O	• •	••	••	••	• •	••	5.70
							100.00

The number of packets of the powder issued to correspondents was 86, and there were 39 reports received. The number of failures in the detection of the several constituents of the mixture is unusually large this time. The boric radicle escaped detection in no fewer than 23 cases, whilst potassium was not detected by 14 students, and the acetic and nitric radicles were not detected by 12 and by 10 students respectively. Lead was not detected hy 6 students, and sodium was pronounced absent by 5.

The numerous omissions in the detection of the boric radicle were not due to any difficulty that the detection or identification of this constituent presented; they were due simply to the fact that a borate was not sought for. Most of our correspondents seem to have supposed that the occurrence of so common a salt as borax in the mixture was outside the range of possibility; at any rate, they never suspected its presence. In the systematic examination for the acids, a borate should make its appearance along with those acids which produce insoluble compounds with barium; but, unfortunately, harium borate will not separate from dilute solutions, so that this reaction does not afford a trustworthy test for the detection of boric acid. The best plan is to make a separate examination for this acid, and there are two reactions which answer very well for this purpose. If a borate be treated with strong sulphurie acid, and alcohol then added, the liberated boric

acid is dissolved by the alcohol. If the alcohol be now ignited, it will burn with a bright-green flame. Salts of copper or of barium may be confounded with boric acid by this test, but if present they can easily be removed before the test is applied. The turmeric reaction is also a very useful one for the detection of horic acid; it affords a more delicate test than that depending upon flamecoloration. The solution to he examined should he acidulated with hydroehloric acid, but it must not contain more than a slight excess. If turmeric-paper be moistened with this solution, and then dried, it will exhibit a characteristic red tint if boric acid is present. In drying the turmericpaper too high a temperature must not be used: the best plan is to dry it in a watch-glass on the water-bath. The student will arrive at a decision with much greater confidence if he compares the tint obtained with that produced by a known borate treated in the same way, employing another piece of the same turmeric paper. With this precaution there is not much risk of error, but without it a mistake may be made, as some other substances impart a reddish colour to turmeric-paper, though of quite a different tint from that given by boric acid.

PRIZES.

The First Prize for the best analysis has been awarded to W. D. Harris, St. Mary's Terrace, Crumlin Road, Belfast. The Second Prize has been awarded to

G. D. ROBERTS, 27 Dorchester Place, London, N.W.

MARKS AWARDED FOR ANALYSES.

W. D. Hat	ris (1	lst pri	ze)	 95	P. T. S	 	 68
G. D. Rob	erts (2nd pr	fz+)	 93	Sulphovin	 	 65
H. Howder	n			 52	Kulium	 	 65
The Colon	el			 91	Danwer	 	 63
R. H. Wib	-(213			 90	The Skunk	 	 62
Rybtan				 88	Alpha	 	 60
E. W. Dav	is			 88	E.W. M	 	 58
W. G. S.				 87	N. M	 	 56
Myosotis				 86	Dewsburian	 	 54
Cleveland				 85	F. C	 	 52
Frango				 85	J. C. West	 	 50
W. Blakele	·v			 84	Æsculup	 	 45
Muddled				 83	S. Riley	 	 40
Ero				 82	II. Bridges	 	 35
Cosmo		.,		 80	Hopeful	 	 30
Vulcan				 75	J. Russell	 	 20
H. Read				 73	Hatfield	 	 15
Vigovina				 71	P. Harris	 	 10
Zymlne				 70	Anonymous	 	 0
Cono				 70			

To Correspondents.

Prizes.—The students to whom prizes are awarded are requested to write at once to the Publisher, naming the book they select, and stating how they wish it forwarded.

Any scientific book that is published at a price not greatly exceeding half a guinea may be taken as a first prize.

Any scientific book which is sold for about five shillings may be taken as second prize.

Vote.—All communicatious should include the names and addresses of the writers.

11. Bowden.—You do not say how you identified the ammonia evolved on heating the powder; a little of the powder adhering to the side of the tube may have given an alkaline reaction. A rather large quantity of the powder examined with great care gave no trace of ammonia.

W. G. S.—The trace of bismuth which you thought you had detected was due to a little lead which escaped separation; it is not easy to remove it completely.

Myosotis .- See remarks to H. Bowden.

CLEVELAND.—You neglected to submit the powder to a preliminary examination in the dry way. You might devote a little more paper to your report with advantage.

FRANCO.—The reaction you obtained with ferric chloride did not prove a borate absent, as you seem to have inferred; any of the ordinary tests for boric acid, applied to the original powder without any special preparation, showed the distinctive reactions of boric acid very clearly.

W. BLARELEY .- You had not sufficient grounds for corelading that

aluminium was present. It was not practicable to separate all the lead $r_{\rm S}$ chloride; on adding ammonia a basic salt of lead would be precipitated, and it must have been this precipitate that you mistook for aluminium.

MUDDLED.—In applying the ferrous-sulphate test for nitrlo acid to the original powder it was necessary to bear in united that lead was present, and would of course combine with the sulpharic radicle, forming insoluble lead sulphate. By adding a large excess of ferrous sulphate and filtering, a solution suitable for the application of the test was obtained.

Eno.—The turbidity produced by silver nitrate in a nitric-acid solution of the powder was so slight that it was manifest only a minute trace of chlorine was present. On the other hand, the indications of a nitrate were most marked, both on heating the powder and on applying the ferrous-sulphate test.

VULCAN.—The odour evolved when the powder was warmed with sulphuric acid was quite unlike sulphur dioxide: it had not the peculiar suffocating effect of that gas. If you had tried the experiment with ever so small a quantity of a sulphite you could not have failed to notice the great difference.

HAROLD READ.—None of the reactions you tried would have revealed the presence of the borate. The coloration of the alcohol fiame and the turmeric-paper reaction were both very easily obtained.

VIGOVINA.—The absence of the burnt-sugar odour and the absence of blackening with sulphuric acid left no doubt as to the absence of a tartrate or citrate.

ZYMINE.—See remarks to "Vigovina." When there is any doubt on a point of this kind, it is easy to try a parallel experiment with a known salt by way of comparison, bearing in mind the possible interference of other salts. When the powder was gently warmed the odour of acetic acid was quite unmistakable.

Cono.—You certainly did record a formidable array of constituents. The explanation of your mistake is simple enough. It is not possible to separate lead completely as chloride; the cold solution retains a notable quantity. You failed to separate the lead as sulphide from the acid solution, and it was this lead that gave the black precipitate with ammonium sulphide which you attributed to metals of the iron group. A sulphate could not have been present in notable quantity, seeing that lead was present and that the powder was readily soluble in dilute hydrochloric acid.

R. T. S.—Yon say you observed "a burnt-acid smell" when the powder was heatel, but this does not throw much light upon the smell or upon its origin: "greater precision is desirable. Your report is much too brief. The best reports of the analysis are fully ten times as loug. We don't want long reports, but we do want to know exactly what was done with the powder.

SULPHOVIN.—The precipitate which you thought was barium sulphate must surely have been carbonate, which would, of course, be produced if you had not added an excess of acid to the sollinm-carbonate solution.

KALIUM.—In the ferrons-sulphate test for nitric acid it is better to add the iron salt first, and to add the strong sulpharic acid cantiously afterwards.

DANWER.—If lead sulphate had been a constituent of the powder it would not have dissolved so readily in dilute hydrochloric acid.

THE SKUNK.—There was no separation of sulphur and no evolution of sulphur dioxide when an acid was added to a solution of the powder, so a thiosulphate could not have been present.

ALUMA.—In trying the effects of heat upon a substance you must observe closely from the beginning. A slight increase of temperature may produce an important result. In the present case acetic acid was evolved abundantly at a temperature a little above the boiling-point of water: at a higher temperature the products of the decomposition of the nitrate predominated.

E. W. M. -See remarks to "Alpha."

N. M.—Nitric acid was readily detected both in the preliminary examination and by the ferrous-sulphate test. You should prepare a similar mixture of salts and repeat your work.

Dewsburian.—Nitric acid is a bad solvent to employ when sulphuretted hydrogen is to be used as a reagent. Your solution must have been either too dilute, too strongly acid, or too warm, if hydrochloric acid gave no precipitate. Sulphuretted hydrogen at first gave a reddish-brown precipitate, and when passed through the solution long enough the precipitate turned black.

J. C. West.—You gave no proof of the alleged presence of a chlorate. Heating with sulphuric acid was certainly a strange method to employ for the liberation of ammonia.

A CHEMIST named Bartolomeo, of Milan, has olaimed the prize of 50,000f. offered by the Paris Academy for a cure of diphtheria, which he professes to have discovered.

CORIANDROL, the active hydrocarbon of oil of coriander, is a colourless liquid, with an odour very different from that of licareol, but in other physical properties the two compounds are practically identical, except that coriandrol is dextrogyrate.

English Acws.

The Editor is obliged to correspondents who send local newspapers containing items of interest to the trade. He will be further obliged if such paragraphs be marked in all cases.

Drugs in Glamorganshire.

Mr. W. Morgan, public analyst for Glamorganshire, reports that during the past quarter he has analysed (among other articles) two samples of milk of sulphur two of citrate of magnesia, six of castor oil, two of senna-leaves, three of tincture of rhubarb, and one of metheglen. One sample of milk of sulphur was pure, the other contained 52.7 per cent. sulphate of lime; but he says it would be useless to take proceedings in this case as decisions have been given that the presence of the sulphate of lime is unavoidable. The citrate of magnesia did not contain any magnesia. The castor oil and senna-leaves were genuine, and the tincture of rhubarb was of full B.P. strength. The metheglen—or methas as it is commonly called—was a solution of honey and sugar, which had evidently been fermented, as it contained $2\frac{3}{4}$ degrees of alcohol. A sample of British sherry wine was an extraordinary mixture. It did not contain any alcohol, but was composed of sugar, a little essence, and bisulphite of soda.

Tragic Death of a Chemist's Assistant.

An inquiry was held at Bridgend, on March 8, before Mr. E. B. Reece, Coroner, touching the death of Llewellyn Beamer Lloyd (20), son of Mr. John Lloyd, pharmaceutical chemist, Bridgend, who died the previous morning. Mr. John Lloyd said his son had been assisting in the shop for the last six years. On the previous Sunday he went to Ogmore, returning home about half-past 9 at night. About an hour afterwards witness heard a shriek, and on going upstairs he saw the deceased apparently in a fit. He was unable to speak, and was convulsed. After he had partly recovered, witness asked him if he had taken anything, to which he replied, "Nothing to do me any harm." administered an emetic, consisting of \(\frac{1}{2} \) oz. of ipecacuanha wine, but it did not act. He then sent for Dr. Naunton Davies, who did all he could for him, but deceased died in convulsions about 2 o'clock on Monday morning. Before he died he said he had acted contrary to his (witness's) wishes, and asked for forgiveness. In reply to the Coroner, witness said when the deceased left the house, he promised to go to school. Witness was vexed when he knew that deceased had been to Ogmore. There was no evidence of drink on him. One witness admitted that he went into three public-houses with deceased, but denied that he was at all under the influence of drink. Another, however, said when he saw the deceased about 9 P.M., he appeared to be the worse for drink. Deceased told him he expected to have a row with his father when he got home, as he generally had when he went on the booze. Dr. Naunton Davies expressed the opinion that death was due to strychnia-poisoning. Strychnine was commonly used to get rid of the effects of drink. Deceased was an excitable and sensitive young man, and very reserved. He attached an exaggerated importance to anything that was said about him. He probably took strychnine as an antidote, and witness was of opinion that he took an overdose. Mr. Lloyd, recalled, was able to say that from the bottle in the shop containing solution of strychnine $1\frac{1}{2}$ drachm had gone. He dispensed the last portion on Friday, when he sold 4 oz. to Dr. Naunton Davies. He had missed from the bottle $1\frac{1}{2}$ drachm since he had dispensed the solution. The Coroner summed up in favour of the view expressed by the doctor, but the jury, after deliberating for half an hour, returned a verdict that deceased committed suicide whilst temporarily insane. The verdict excited considerable astonishment in the town, and Mr. Lloyd has written to the Press a letter commenting upon it somewhat bitterly. His son, he says, "suffered greatly from fits, and having a frail constitution and sensitive nature, and being frequently depressed and grieved at being taunted for having an impediment of speech, he was retained at home, as I considered him quite unfit to fight the ordinary battles of life. Pushing sales was repulsive to him. The pleasures of his life consisted in the cultivation of flowers and music. Of the latter he had no inconsiderable knowledge, having passed the intermediate examination of the Royal College of Music, and was entered for the senior examination next month."

Public Analysts and the Government Laboratory.

Mr. A. H. Allen, public analyst to the West Riding County Council, in his annual report to that body expresses the opinion that a highly desirable amendment of the existing law would be the formation of a chemical department of the Local Government Board, with an officer whose duty it would be to analyse disputed samples, and, if necessary, to submit them to chemists especially experienced in the analysis of that particular class of sample, which the present referees are not except as regards exciseable articles. Such an officer would recommend from time to time standards of strength and purity for various articles, which standards would become legally binding after their approval by the Privy Council or similar authority. It would be the duty of the chemical officer to be in constant touch with similar departments of foreign countries. He would thus get early knowledge of new sophistications, and it would not be possible for him to be cognisant for a long period of a certain kind of adulteration being practised and not consider it a part of his duty to inform public analysts of its existence.

Alleged Defalcations by a Chemical-manager.

At the Rochdale County Police Court, on Wednesday of last week, charges were preferred, on the information of Mr. Hugh Barrett, manufacturing chemist, of Castleton, against Mr. Henry S. Close, of Hillam Hall, South Milford, Yorkshire, for having issued balance-sheets or accounts, as manager or cashier of the company, knowing the same to be false, and with intent to deceive; and also for fraudulently taking and applying to his own use two sums of 150*l*. and 250*l*, and falsifying the books to that extent. The hearing was adjourned to March 28.

The Recent Fire at Oxford.

The Watch Committee of Oxford Town Council have called the attention of that body to the unsuitable character of the premises of the Oxford Drug Company for the storage of such inflammable articles as were found there, alleging that the articles were so stored as to increase the danger of fire, and that fires have occurred on the premises on two previous occasions. The Sheriff pointed out that the alterations that were being carried out on the premises accounted for the disorder there, and the other members of the Council being of opinion they had no power in the matter, referred the report of the Watch Committee for further consideration.

Prussic Acid after Spirits.

The Hampshire Coroner held an inquest last week on the body of Roderick Fraser, aged 40, naval and military outfitter, of High Street, Gosport, who was found in a store-room having taken prussic acid, which he had obtained of Mr. J. E. Prescott, chemist, for cleaning gold lace. Dcceased died just after the arrival of a medical man, who stated that the reason deceased did not die at once was that he had been drinking spirits, which had somewhat thrown off the effects of the poison. Deceased had had some monetary troubles. The jury returned a verdict that the deceased committed suicide while temporarily insane.

The British Association.

The following arrangements have been made for the meeting of the British Association, which will commence this year on August 8 at Oxford:—Presidents of Sections: A, Mathematics and Physical Science, Professor A. W. Rücker; B, Chemistry, Professor A. B. Dixon; C, Geology, Mr. L. Fletcher; D, Biology, Professor Bayley Balfour; E, Geography, Captain Wharton; F, Economic Science and Statistics, Professor Bastable; G, Mechanical Science, Professor Kennedy; H, Anthropology, Sir W. H. Flower; I, Physiology, Professor Schäfer. The evening discourses will be delicated. Professor Schäfer. The evening discourses will be delivered by Mr. W. H. White and Professor J. S. Nicholson. At the meeting of the general committee at Oxford, held for the election of officers, Sir Douglas Galton will be proposed as President of the Association for the meeting at Ipswich in

Fire at a Chemist's Shop.

An exciting scene was witnessed early on Monday morning at a fire in High Street, Chatham, on premises occupied by Mr. Venables, a chemist. When the inmates were aroused the shop was in flames, and the odour from the burning chemicals was suffocating. Ladders were procured by the firemen, and Mr. and Mrs. Venables were rescued through the bedroom window. Considerable damage was done.

A Drug of all Work.

A wholesale drug firm inform us that they have received a specimen of a root from Western Africa accompanied with the statement that "it is used by the natives for fevers, gonorrhea, swollen testicles, boils, blains, loss of appetite, and also for cleaning teath."

The Sale of Oxalic Acid.—A Magistrate's Lecture.

At the Penge Divisional Petty Sessions on Tuesday afternoon, before Dr. Hetley (in the chair) and Mr. John Tolhurst, Angelina Emma Gobby (17), a domestic servant, who had been remanded on a charge of attempting to commit suicide by taking a quantity of oxalic acid, was handed over to the Dr. Wilton Wilder to the care of the Rev. Walter Hobbs, who said he had found a home for her. Dr. Hetley now asked whether there was anybody in attendance on behalf of Mr. Izod, chemist, of Church-road, Upper Norwood, at whose shop the girl admitted purchasing the poison.

Mr. Charles Lines, assistant to Mr. Izod, said he served

Gobby with the acid.

Dr. Hetley said that at the previous hearing their Chairman (Mr. James Judd, C.C.) expressed it as his opinion that Mr. Izod should attend and give some explanation with reference to this case. It was given in cvidence that this girl, through some unfortunate circnmstance, had made up her mind to destroy her life, and she told another girl what she intended to do. The next morning she went to Mr. Izod's shop and purchased 2d. worth of oxalic acid "for cleaning brass." He (Dr. Hetley) believed it was the invariable custom for people to say they wanted oxalic acid for the purpose of cleaning brass, whether such was the case or not, and the question was whether proper precautions were taken by the person who supplied the poison to satisfy himself that it was wanted for the purpose stated.

Mr. Lines said he had brought his poisons-book with him,

Dr. Hetley said he might as well at once tell him that the girl told the Bench she asked for 2d. worth of oxalic acid to clean brass with, that the acid was supplied, that her name and address were not asked for, and that no observation was made to her with reference to its use, or caution administered. Had he anything to say in explanation?

Mr. Lines said it was not necessary, when selling oxalic

acid and several other poisons, to ask any questions.

The Magistrates' Clerk said the Bench quite understood

that oxalic acid was in the second schedule.

Dr. Hetley said he was aware that the Act relating to the sale of poisons had omitted to include oxalic acid, which, of course was a great blunder; but, nevertheless, a chemist knowing it to be a deadly poison, the question arose whether or not in the interest of the public, and in the interest of his own reputation, he should not try to do his best to correct the omission of the Act. Although it was not a scheduled poison within the meaning of the Act, it was still open to a chemist in selling it to ask certain questions. He had inquired of another Upper Norwood chemist, who assured him that he refused to soll oxalic acid without asking all the questions he would ask when selling arsenic or laudanum, and he said that during the past few weeks he had refused, in consequence of insufficient explanation, more than half-adozen people. There was a girl out of place, and lodging nowhere, as it were, and she stated that the acid was to clean brass with. The question was, whether the chemist should not have interrogated her further?

Mr. Lines said he labelled it "Poison"—that is all that is

ecessary

The Olerk said that was all that was legally necessary, but the Bench wished to impress upon him the danger of selling poisons without sufficient care.

Mr. Lines argued that oxalic acid was not more dangerous

than white-lead.

Dr. Hetley said that was a very foolish reply, and ntterly inapplicable. This girl had expressed it as her intention to kill berself, and a few questions from him might have satisfied him that she was not buying the oxalic acid for the purpose of cleaning brass.

Mr. Lines: Suppose I had asked the question?

Dr. Hetley: You would have fulfilled the obligations cast

upon you from a humane point of view.

Mr. Lines said he went further than was necessary by asking her whether it was to clean brass with. If they inquired into every pennyworth of poison they were asked for, they would not be able to transact their business.

Dr. Hetley said that by asking a few questions chemists

might be the means of saving a great many lives. Mr. Lines: It is not customary to ask.

The Clerk: Not according to law, but it is according to

Dr. Hetley: Yes, and I warn you severely that you are not acting in the sale of poisons in a reasonable way. I am perfectly satisfied that Mr. Izod would agree with me that you ought to make inquiries. If you had said at once that you were sorry you had made an omission it would have been different, but you excuse yourself on the ground that it would take too much time to ask questions. I hold that it was your duty to ask these questions.

Mr. Lines: I asked one question, which was more than

was necessary.

Dr. Hetley: Suppose she had killed herself? Mr. Lines: I could not have helped that.

Dr. Hetley: Your replies to the Bench are most unsatisfactory, and show a thorough want of humanity. Are you a member of the Pharmaceutical Society?

Mr. Lines: No; I am a qualified chemist.

Dr. Hetley: Is Mr. Izod a member of the Pharmaceutical Society?

Mr. Lines: Yes.

Dr. Hetley: I feel that the Bench ought to make a representation to the Pharmaceutical Society informing them that in selling oxalic acid it is not considered worth while to make any remark to the purchaser, except asking what it is going to be used for.

Mr. Tolhurst assented to this proposal.

Carbolic-acid Poisoning.

John Robert Caleb Smith (63), a naval pensioner, died at Portsmonth last week apparently from the effects of carbolic acid.

A boy named Thomas Homer has been poisoned by accident in Birmingham. The lad was suspected to be ill with typhoid fever, and was snpplied with a bottle of medicine, and a bottle of carbolic acid was given for disinfecting purposes. On Sunday after dark his mother gave him the carbolic acid for the medicine. Medical aid was called, but the boy died.

An inquest was held at Chelsea on March 19, touching the death of John William Gardner, 59, of Stadium Street, Chelsea, who died on the previous Tuesday after drinking carbolic acid. The deceased had been in a depressed state, and had been under medical treatment for a gastric trouble brought on by drink. The jury found a verdict of snicide while of unsound mind and under the influence of drink.

Fertilisers and Feeding-Stuffs Act.

Cumberland County Council have appointed Mr. Robert Hellon, county analyst under the Food and Drugs Act, district agricultural analyst, at a retaining fee of 21*l*. and actual travelling expenses. The Council declined to join with the Westmoreland County Council in the appointment.

Mr. J. Carter Bell, F.I.C., the Cbeshire county analyst, has been appointed the district analyst for the county of

At a meeting of the Council of the Worcestersbire Chamber of Agriculture on Saturday, March 3, a letter was read from Dr. Voelcker pointing out, in reply to an inquiry from the Conneil, that the analysis of soils was a much longer and more complicated process than that of analysing ordinary fertilisers. Whereas fertilisers could be analysed in two days, the complete analysis of soil would take at least ten days and generally longer. One guinea would be charged for a partial analysis, but a complete analysis would cost not less than three guineas.

Dr. Swete, in a letter, boped the Chamber would not overlook the fact that there were capable analysts in the neighbourhood. A complete analysis, necessitating at least twenty operations, would take from four to five days; the finding merely of the plant-food value in the soil cause about fourteen operations, to take about three days; while a merely mechanical analysis-which, however, would be of very little use to the farmer-could be done in one day. The respective charges would be-for the first, from three to five guineas; for the second, two guineas; and for the third, one

The Chairman suggested that they should ascertain from Dr. Voelcker what he meant by partial analysis, and also communicate with Mason College, Birmingham, where it was proposed to establish an agricultural department, and where, of course, were excellent chemists.

The snggestion was adopted.

Imperial Institute Research Committee.

A committee of advice has been appointed in connection with the Scientific and Practical Research Department of the Imperial Institute, and the members have adopted a scheme of action which it is hoped will result in making the public acquainted with the resources of various countries, to enable men connected with commerce and industry to compare the products of particular classes furnished by the several countries, and also to direct the attention of those practically interested in them to new or little-known natural products and to furnish trustworthy information as to their nature, properties, and value. The following are the members of the committee of advice and the subjects with which bers of the committee of advice and the snbjects with which they will deal:—Professor Armstrong, F.R.S., Dr. W. H. Perkin, F.R.S., and Professor Meldola, F.R.S. (dyes, tanning materials, and organic products); Dr. Hngo Müller, F.R.S. (mineralogy, botany, and fibres); Mr. C. F. Cross (fibres); Professor Dunstan, F.R.S. (pharmaceutical products and drugs); Mr. David Howard (alkaloids and drugs); Professor A. H. Church, F.R.S. (agriculture); Mr. Boverton Redwood (petroleum and oils); Professor Roberts-Austen, F.R.S. (metallurgy, fuel, and ores); Mr. Bennett Brough (metallurgy, mining, and minerals); Professor W. C. Unwin, F.R.S. (structural materials); Professor Hummell (dyes and tans); Professor W. A. Tilden (gums and resins); Mr. W. H. Dering (oils, waxes, and fats); Mr. H. A. Miers (mineralogy); Dering (oils, waxes, and fats); Mr. H. A. Miers (mineralogy); and Mr. Horace T. Brown, F.R.S. (food-grains). Sir F. Abel, F.R.S., is director, and Mr. Theodore Cooke, LL.D., is secretary of the committee.

Photographic Poisons.

Mr. J. H. Hobbs, a photographer, of Brecon, aged 61 years, when at tea last Friday complained of his arm. He went into an adjoining room, and the servant shortly afterwards saw him take a glass from his lips. He became ill and died, and it was found that he had drunk by mistake from a solution of cyanide of potassium which was kept by the side of other bottles in the room.

Drug-contracts.

On Monday, at the meeting of the Marylebone Guardians, the committee recommended that the tenders for a three months' supply of Messrs. J. H. May & Co., of 9 Arthur Street West, E.C., to supply the Infirmary and the North and South Dispensaries with drugs as detailed for 1091. 4s. 5d., 14l. 3s. 2d., and 33l. 8s. 6d. respectively, be accepted. The same committee also recommended that the offer of Messrs. Burgoyne, Burbidges, Cyriax & Co., of 16 Coleman Street, E.C., to supply the Infirmary and Dispensaries with druggists' sundries as detailed for 83l. 7s. 5d, 1l. 17s. 8d., and 2l. 16s. respectively, be accepted. These recommendations were agreed to.

A Chemist's Assistant in Trouble.

At the South-Western Police Court, George Borlesdon, a chemist's assistant, residing at Lucretia Road, Kennington Lane, was charged last week before Mr. Lushington with having committed a violent assault upon Mr. Charles Scott, of Fentiman Road, South Lambeth. The complainant said he was leaving a tram car in the Wandsworth Road when

the defendant deliberately struck him a violent blow with a stick, cutting his head open. The prisoner alleged that the complainant first assaulted him, and in self-defence he gave him a slight tap with his stick. Mr. Lushington was satisfied that an assault had been committed, and fined the prisoner 10s., and costs.

The Alleged Arsenical Apples.

At the adjourned inquest on the child at Keswick, who it was believed had died through eating an apple which contained arsenic, Dr. Stevenson reported that he had feund no poison, although the appearances were strongly suggestive. The child had died from asphyxia caused by gastro-enteritis. Arsenic was specially searched for with the greatest care, and not found. The apple had the appearance of a red "American Baldwin" apple. He fed a mouse on one half of the portion of the apple sent to him. The animal did not appearance of a red "appearance of the apple sent to him. appear to snffer from it in any way, and after two days was still alive and healthy.

Perfumery Claims.

Messrs. Truefitt (Limited), perfumers, Bond Street, applied in the Westminster County Court on Tuesday for orders of committal in two cases. The first defendant was a person named Wills. Jndge Lumley Smith said he was at a loss to know how the plaintiffs came to give the defendant credit to such a large extent. The plaintiffs' representative said the defendant held a good position in the country, and was well able to pay. He gave the order on note-paper which bore a crest and coat of arms. His Honour made an order of committal to Holloway for twelve days, suspending the warrant for a month.

The second defendant was a clergyman named Fitzgerald. He was said to be in receipt of a stipend of 250%, a year. The claim was for balance of account. The debtor wrote offering payment by monthly instalments, and his Honour made an order in accordance with the offer.

Contract for Disinfectants.

The St. Giles' District Board of Works have accepted the tender for disinfectants of Messrs. Adcock, Easton & Co., of the Charteris Works, Finsbury Park. The other firms tendering were George Mayer & Co.; Adams, Webster & Co.; and the Tuson Disinfectant Company.

Scotch News.

Thefts from Chemists.

At the Edinburgh Sheriff Court last week, George Lumsden was sentenced to three months' imprisonment on several charges, amongst them being the theft of twelve bottles of medicine, a bottle of dye, some bottles, brushes and sponges from the shop of Mr. J. T. Coats, pharmaceutical chemist, of 94 Ferry Road, Leith. The prisoner, who was a joiner, had been sent to do some repairs at the shop.

A Link with the Medicals.

Mr. Thomas Hetherington, Tillicoultry, has secured larger and more modern premises for his business. He has arranged to connect this establishment with the houses of the two medical gentlemen of the town by private telephone-lines.

french Pharmaceutical News. (From our Parts Correspondent.)

MONUMENT TO DAGUERRE.—The Municipal Council of Bry-sur-Marne, near Paris, has decided to erect a monument to Daguerre, the inventor of photography.

HYPNOTIC MEDICAMENTS.—In a paper recently read by M. Bardet before the Paris Therapeutical Society this gentleman classed hypnotic medicaments into five groups, according to their chemical nature, as follows: (1) Ethers, (2) the derivatives of aldehyde, (3) aromatic, (4) vegetable, and (5) mineral. Under ethers are comprised chlorides, acetates, tartrates, &c. M. Bardet recommends sulphonal in this

class for tenacious insomnia. He finds it to produce a similar effect to alcohol, without the accompanying excitement. The derivatives of aldehyde include paraldehyde, which also acts similarly to alcohol and methylal. He claims for the latter that it produces no after-effect on the patient. Chloral and its derivatives are quoted as energetic hypnotics. This substance, however, is found by M. Bardet to irritate the digestive organs, though with the derivatives the inconvenience in this respect is much less. "Hypnone" is given as the aromatic hypnotic, but its effects seem to be very little known. The vegetable group appears to count for very little, while bromide is given as the fifth and last, with the recommendation that it should be reserved for the general treatment of nervous maladies.

PRESERVING MEAT.—The Council of Hygiene of the Seine Department has recently taken in hand an examination of two preparations sold for the purpose of preserving meat and other articles of food. One of these is sold by the maker as Liquide Conservateur, and each litre contains 99 grammes of sulphurous acid combined with lime. The second is known as Poudre Conservatrice, and contains rather more than 30 per cent. of bisulphate of soda mixed with sea-salt. Both of the preparations are claimed to be perfectly harmless and of great value from an antiseptic point of view. M. Riche, the chemical expert, who has been charged by the Council to report on the subject, has formed a different opinion. In the first place, by the use of the two preparations in question dishonest tradesmen might be tempted to sell contaminated meat, and, in the second, the nutritive value of the food may be reduced. M. Riche also thinks that as snlphuric acid is not infrequently made from arsenical pyrites the preparations containing it may retain traces of arsenic. The Council has therefore condemned the two "preservatives" as being possibly dangerous to the public health.

THE PROFESSION OF PHARMACIST.—Dr. Armaingand, a prominent Bordeaux physician, has published a letter on the subject of pharmacy, in which he urges that the public should acquire a more just idea of the pharmaceutical profession, think a little more of what is due to the pharmacist, and not quite so much of what is expected of him. Good pharmacy, he says, consists in the conscientions preparation of medicines, without which the efforts of the cleverest doctors are of no avail. After tracing the scientific attainments required of a pharmacist, Dr. Armaingand reminds his readers that Ch. Bernard, the greatest physiologist of the century, commenced life in a pharmacy, and that Aristotle originally earned a living by preparing and selling medicaments. He also says that the pharmacist is a man to whom the ordinary pleasures of life most remain closed. The average Frenchman supposes him to require no recreation and barely any healthy exercise. The letter continues as follows:—"And you would wish that a man whose functions are so indispensable, who renders such services, whose existence is so monotonous, and who bears the weight of so much responsibility should be treated as a simple grocer. It needs only a little reflection and equity to understand that this is unjust. The pharmacist, as much as anyone else, if he conscientiously fulfil the conditions required of him, has the right to live by his work and to acquire a competency." The following is given as a specimen of a legitimate charge for compounding a prescription:-

45 centimes. 15 " 15 " 25 " 20 " 20 " 10 " Raw material Manipulation, time employed ... Interest on capital.
General expenses
Professional services
Vigilance and special attention
Responsibility 1:50

TEACHER (to class in chemistry): "What does sea-water contain besides the sodium chloride that we have mentioned?" Bobby Smith: "Fish, sir."

AN OINTMENT THREE THOUSAND YEARS OLD .- Among the Egyptian curiosities contained in the famous museum of the Duke of Northumberland at Alnwick is a jar of ointment which is upwards of three thousand years old. Notwith-standing this extreme antiquity the ointment retains a powerful smell.

Foreign und Colonial Rews.

FOOD-ANALYSIS IN TURKEY.—A public laboratory for the analysis of foodstuffs is to be established in Constantinople under the auspices of several well-known pharmacists and medical men.

ANTIMONY FOR BISMUTH.—A Press despatch from Montreal conveys intelligence of a fatal mistake on the part of an employé in a wholesale drug-house. An order for a bismuth salt for immediate use was telephoned to the house in question by a druggist who had none at the time, and a salt of antimony was snpplied instead. The death of the patient, the young wife of a physician, resulted.

OPIUM-PACKING BY MACHINE.—It is stated that a Dutch-Indian engineer has invented a machine for packing opium, suitable for the purposes of the Dutch-Indian Opium Department, which, on behalf of the Government, controls the sale of the drug used for smoking in the Dutch Indies. Experiments having proved the practical value of the invention, several machines have been constructed and forwarded to Java.

THE PROPRIETORS of the Shipping and Commercial List, which is the oldest mercantile journal in the United States (it was founded in 1795), have sold their paper to Mr. D. O. Haynes, of Detroit, Michigan, the proprietor and publisher of the Pharmaceutical Era, and the two papers will in future be conducted under the same control, though as separate publications. The Era, a fortnightly, is one of the foremost American pharmaceutical journals, and under the new management the Shipping List, which is published twice weekly, will no doubt acquire a similar position in the wholesale produce market.

The Moor Morphia-Antidote.— Dr. Wm. Moor, of New York, is still at it with his potassium-permanganate antidote to morphia. He has now, after trying the poison and the antidote on his own person, reached the length of experimenting on dumb animals, and claims to have shown by experiment that with rabbits the poison may be neutralised, after it has entered the circulation, by applying the antidote as a hypodermic injection. Following these experiments a case is reported in which the treatment was successful in a human subject. Particulars of Dr. Moor's experiments are given in the *Druggists' Circular*, which also observes that a trial of the antidote was made at the New York Homeopathic College, several weeks since, on dogs, with wholly satisfactory results, and subsequently Dr. Moor, with the assistance of several other physicians, performed similar experiments on rabbits, with the same outcome. Dr. Moor suggests that in case of poisoning either by the alkaloid or the tincture of opium, some diluted sulphuric acid or vinegar be given with the antidote, to convert insoluble morphine into a more soluble salt.

The Java Government Cinchona-Gardens.—From the report of the Government cinchona-plantations in Java during the last quarter of 1893, it appears that the exceeding wetness of the seasons 1892 and 1893 was the cause that no public sales of Government cinchona-secd could be held in Java, there being no suitable material available. For the same reason it was found impossible to sow seed on the Government plantations in 1892, but as the sowings of the year before had been very large there will be no lack of seedlings. It was observed that the quinine percentage of various parcels of crushed bark harvested in 1892 was lower than that of similar parcels of the 1891 crop, and as the mode of scraping followed in 1892 differed from that of the preceding year, the following test was applied to ascertain Whether the content of the bark was affected by scraping: Twenty-five trees were scraped from the ground to a height of about $4\frac{1}{2}$ feet, a strip of bark being cut at the same time from the unscraped higher portion of the stem and analysed. After three months another strip was cut from the place adjoining the one previously bared, when a relatively considerable reduction of the alkaloidal richness of the bark was ascertained. There are now in the Government plantations (exclusive of 745,000 Succirubras and 267,000 Ledgers in the nurseries) 2,094,800 trees, of which 2,203,000 are Ledgers, 87,900 Officinalis, and 610 Succirubras and Calopteras.

AUSTRALASIAN NEWS.

The following notes on Australasian news are based upon information contained in the February number of the C. § D of Australia:—

Poisoning, A Filial Duty.—A young lad at Wellington, N.Z., recently showed symptoms of poisoning, which at first were put down as due to accident. Afterwards, however, a letter was found in his handwriting which indicated that he had swallowed rat poison wilfully, in the hope that his father, who had lost his position, might receive payment on an insurance policy effected on his son's life. The boy was relieved of the poison.

THE COLONIES AND THE B.P.—Our Melbourne journal prints a letter addressed by the Secretary of State for the Colonies, Lord Ripon, to the Premiers of the Australasian Colonies transmitting Sir Richard Quain's letters to the President of the Privy Council suggesting Colonial and Indian co-operation in the preparation of future editions of the B.P. Lord Ripon requests "the officer administering the Government of Victoria" to bring the subject under the notice of the medical authorities in the colony and invite their co-operation with the General Medical Council."

PHARMACY IN A NEW SETTLEMENT.—The Manawata Farmer, New Zealand paper, has the following: "Three chemists have visited Shannon within a fortnight to see what opening there is for a business. Two more (sic!) Chinamen have also been looking round. If there were shops to let they would be quickly taken up, but there are none, and private residences are at a promium too. Tents can be seen here and there." Three chemists and two "more" Chinamen looking round for shops where all the people live in tents in anticipation of erecting more durable dwellings, argues a farsighted business mind in the prospectors.

N.S.W. PHARMACY BILL PROSPECTS.—The N.S.W. Pharmacy Bill is lost sight of altogether in Parliament for the present. A high colonial authority on pharmacy matters offers odds of three to one that if the measure comes before Parliament in its present form it will be defeated, because many members regard the Bill as a measure designed for the benefit of pharmacists alone. When a former effort was made to secure the passage of a Bill framed on somewhat similar lines to the present, its most vigorous opponent was Francis Abigail, who is now serving a sentence of five years' imprisonment in connection with the Australian Banking Company's frauds.

"ADVANCE AUSTRALIA!"—BACKWARDS —Of the fourteen candidates who presented themselves for the Final pharmaceutical examination in New South Wales at the close of last year only five passed; and of these five, the highest number of marks was gained by Otto Bergmark, a Dane, who had received his training in his native country. The examiners were not at all pleased with the majority of the candidates, who showed lamentable weakness in the most important subjects. The general standard of knowledge of the examinees was the lowest that has ever come under the notice of the examiners. The result of the Preliminary examination was not much better.

"NEW AUSTRALIAN" PHARMACISTS.—A chemist and three chemists' sons from Tasmania are among the emigrants from Australia who have thrown in their lot with Mr. Lane, the founder of the communistic colony of New Australia in Paraguay, South America, and have departed for the new settlement. At a social meeting held previous to the departure of the young men, Mr. J. N. Bocks, pharmacist, of Port Adelaide, the father of one of the emigrants, deplored the absence of opportunities for young men in Australia; his son's profession, that of an engineer, being quite overstocked. It has been stated in the Australian press that the first batch of settlers landed in Paraguay without medicines, but this statement is denied by Messrs. G. N. and W. H. Birks, of Adelaide, who state that they provided the first batch of settlers with a chest of concentrated medicines, and that the man to whose care it was entrusted had more than a smattering of medical knowledge.

Pharmaceutical Society of Freland.

THE monthly meeting of the Council was held on Wednesday, March 7, at the Society's House. Present: Mr. William Hayes (President) in the chair; Mr Beggs (Vice-President), and Messrs. Grindley, W. F. Wells, Dr. Burnes, W. J. Baxter (Coleraine), Charles Evans, J. J. Bernard, Conyngham, Boyd, and Downes.

REGISTBARS AND DEATHS OF CHEMISTS.

A letter from the Registrar conveyed an apology and explanations in relation to an omission on the part of the District Registrar of Deaths of Belfast to forward to the Registrar of the Society a certificate of the death of Mr. John Bethune, a

member of the Society, who died about ten months since.

The REGISTRAR (Mr. Ferrall) stated that in writing to the Registrar-General on the subject, he told him that a similar

omission had occurred in a number of other cases.

The PRESIDENT: The whole machinery for sending notifications of the deaths of our members to us is most unreliable.

Mr. WELLS: It was by chance that we found out this case. I believe there are names of persons on our register who are dead and gone. I know one case of a man whose name was on the register five years after his death.

The RECISTRAR: The fault lies with the district registrars,

because they have instructions to send notifications of the

deaths to us.

PHYSICIANS AND CHEMISTS' SHOPS.

The following letter from Dr. G. P. L. Nugent, Fellow and Registrar of the Royal College of Physicians, Ireland, was read: -

In reply to your letter of the 13th instant, I beg to state that on February 2, 1394, the President and Fellows amended the declaration to be taken by licentiates on their admission to the College, in so far as to remove the disability under which they formerly laboured of keeping open shop for the sale of medicines. I am to add that this amendment conferred no rights on the licentiates with regari to the sale of medicines which they did not previously possess.

Mr. Wells: As the Law Committee have this matter under consideration there is no use in discussing that letter

Mr. GRINDLEY: It is merely a formal reply to the letter we addressed to them.

VARIOUS CORRESPONDENCE.

A letter from Mr. F. H. Deverell transmitted a copy of a lecture on "The Teaching of Pharmacy in the United Kingdom," delivered at Toulouse by M. Marcailhon de Aymeric, President of the Société de Pharmacie du Sud-Ouest.

A letter, signed by the President and Secretary of the Eighth International Congress of Hygiene and Demography, to be held at Buda-Pesth from September 1 to September 9, 1894, invited the Council to send delegates to that Congress.

The Registrar was directed to write thanking the President and Secretary for the invitation; and Professor Tichborne was nominated to attend the Congress.

A letter from Mr. Thomas W. Robinson thanked the Council for appointing him examiner in Dublin of the qualifications

of pharmaccutical chemists' assistants.

A conversation took place in connection with a letter read from a young gentleman under 16 years of age who sought to be admitted to the preliminary examination. The PRESI-DENT, Mr. Wells, and other members of the Council expressed the opinion that the existing regulation excluding candidates under 16 years of age was uscless, and that younger candidates who showed that they possessed the requisite educational qualifications should be admitted as pharmaceutical students.

It was understood that Mr. Wells would give notice of a

motion on the subject.

A letter was read from the directors of the Dublin Mechanics' Institute asking that their science school should be placed on the list of those from which the Society accepted certificates of attendance at courses of lectures on chemistry and physics. The letter stated that the school had been twenty years in operation in connection with the

Science and Art Department, and was presided over by a gentleman who was a moderator and medallist of Trinity

Mr. GRINDLEY: I think it is only a theoretical school. The REGISTRAR said there was an evening class for

chemistry from 7.45 P.M. to 8.45.

Mr. Wells: We have already decided not to add any more schools to our list. It already includes four or five

Dublin schools. The VICE-PRESIDENT: I think we have enough in Dublin. Mr. Wells: Besides, the chemical instruction they give

is not exactly pharmaceutical. Mr. BAXTER moved a resolution to the effect that the Council did not, under the circumstances, see their way to adding to the number of schools.

Mr. GRINDLEY seconded the motion, which was unani-

mously agreed to.

A letter from Sir W. Kaye, conveyed the approval by the Privy Council of the appointment of Mr. T. W. Robinson, as examiner in Dublin of assistants to pharmaccutical chemists.

EXAMINATION OF ASSISTANTS.

Mr. BAXTER moved that Dr. McKinney, of Belfast, be reappointed examiner in Belfast of assistants to pharmaceutical chemists.

Mr. CONYINGHAM seconded the motion, which passed

unanimonsly.

NEW MEMBERS.

On the motion of the PRESIDENT, seconded by Mr. GRINDLEY, Mr. A. L. Doran, 1 Goldsmith Terrace, Bray, and Mr. John Laird, 118 George's Street, Limerick, were admitted members of the Society

Some other business having been disposed of,

The Council adjourned.

APRIL EXAMINATIONS.

The Quarterly Preliminary examination will be held on Monday, April 2. The last day for receiving applications for

same will be Tuesday, March 27.

The Quarterly Pharmaceutical License examination will be held on Wednesday, Thursday, and Friday, April, 4, 5, and 6. The last day for receiving applications for same will be Wednesday, March 21.

NEW BOOKS.

THE following new books of interest to readers of THE CHEMIST AND DRUGGIST have been published recently. Mention of a publication in this list does not preclude a subsequent review of any book.

Atkinson, G. F.-The Study of the Biology of Ferns by the Collodion Method, for advanced and collegiate students. 8vo. 8s. 6d. (Macmillan.) Burdett, H. C.—Hospital and Charities' Annual, 1894. Post 8vo. 5s.

(Scientific Press.) Hill, W .- The First Stages of the Tariff Policy of the United States. 8vo. 38.6d., sewed. (Sonnenschein.)

Heath, C.—Injuries and Diseases of the Jaws. 4th edit. Illustrated Edited by Henry Percy Dean. 8vo. Pp. 432. 14s. (Churchill.)

Notes on Modern Remedies and New Pharmaceutical Preparations. Paper covers. Pp. 84. (Raimes, Clark & Co., Edinburgh.)

Squire, Peter .- Companion to the Latest Edition of the British Pharmacopeia; comparing the strength of its various preparations with those of the U.S. and other foreign Pharmacopæias, to which are added non-official preparations, and practical hints on prescribing. Sixteenth edition. Revised by Peter Wyatt Squire, F.L.S., F.C.S., and Alfred Herbert Squire. 8vo.

Cloth. Pp. xl. and 693. (Churchill.)
Stille, A., and Maiseh, J. M.—The National Dispensatory: containing the natural history, chemistry, pharmacy, actions, and uses of medicine. 5th edit, enlarged and revised in accordance with the Seventh Decennial Revision of the United States Pharmacopæia. With 320 illustrations. Roy. 8vo. Pp. 1,910. 36s. (Churchill.)

Will, J. C. O .- Lectures on Genito-Urinary Diseases. With immerous

illustrations, 8vo. Pp. 158. 6s. net. (Scientific Press.)
Williams, C. T.—Aëro-Theraprutics: or, the Treatment of Lung-diseases by Climate. Being the Landeian Lectures for 1893. 8vo. 6s. net (Macmillan.)

The Winter Session.

THE CHEMISTS' ASSISTANTS' ASSOCIATION.

THE chemists' assistants of London held their seventeenth annual dinner on March 8. This year they came Citywards annual dinner on March 8. This year they came Citywards and filled the large, and for the occasion appropriately designated, "Pillar Hall" of our neighbour the Cannon Street Hotel. The company numbered nearly 200, and Mr. T. H. W. Idris, J.P., L.C.C., presided. After dinner Mr. IDRIS glorified the Queen; the toastmaster, on his own responsibility, added the Prince and Princess of Wales, and a rather thin-toned piano responded. Then Mr. E. H. GANE enlogised the medical profession, intimating that the only eulogised the medical profession, intimating that the only hope for the advance of pharmacy was for pharmacists to follow their example and ensure a thorough training and education. Dr. THOMAS STEVENSON, the analyst, and Privy Council's representative at the pharmaceutical examinations, was called upon to reply. In his view the medical profession is the greatest of all professions, but it would not have been what it is if it had not proceeded on the lines of strict honour. This led him on to the question of ethics, which, he had privately learned, had been taken up by his audience, and on which he duly complimented them. To Mr. SAGE, the Honorary Secretary of the Association, had been entrusted the toast of "The Pharmaceutical Society." He gently criticised the Society for not doing more for their associates between the time of their examinations and of their going into business. He would like to see more courses of lectures like those of Dr. Armstrong on "Fermentation" a year or two since. Mr. CARTEIGHE responding, said he would have been obliged to Mr. Sage if he had attacked the Pharmaceutical Society more vigorously. Since he had been President, and especially since he had gone round the country, he seemed to have disposed of all objections to the Society. Even the Press had now nothing to say against their proceedings. They had, in fact, no one to tread on the tails of their coats. He complimented the Association on having reject the mented the Association on having raised the subject of ethics, and hoped they would, each in himself, carry out the spirit of their proposals. The task was a difficult one, but he trusted that when they became old men they would have come through the trial spotless and scatheless. He then explained how it was that the Society could not take up such a code officially, repeating, to a great extent, his speech on the subject at the Council the previous day. As to the evening meetings, he said, this Association should be the last to throw stones at the old lady of Bloomsbury. It was they who had robbed her of the papers. He hoped, how-ever, in a few years' time it might be found possible to organise some such courses of lectures as those which Mr. Sage had spoken about. The CHAIRMAN next proposed "The Chemists' Assistants' Association" in a short but effective speech. He said he was proud to be a chemist, and the happiest years of his life were spent as a chemist's assistant. Forty-two years ago he was apprenticed to a draper, but in consequence of a difference of opinion between himself and the draper's foreman, he had one day to fly from the latter's yardstick, and he took refuge with a relative who was a chemist. He had always been thankful to that yardstick. The trade of a chemist and druggist was a particularly interesting one, and they might make themselves useful as well as successful in it. He admired their Association and their will to make that Association an ethical power in the their will to make that Association an ethical power in the trade. Mr. HARRISON, the President of the Association, who responded, said the company present that night was the best evidence they could offer that they had justified their existence as an Association. But, like plants, they must prove their life by growing. There were plants which would grow though they did not come into contact with water or any form of external nourishment. But in those cases they were found to lose weight. It was necessary that they should recruit their strength from the outside. Nor must they be discouraged if, like all plants, they put forth many buds which did not develop. They must expect many failures, but he trusted they would succeed on the whole, for they had the welfare of the trade at heart. Mr. B.-H.-Jones proposed "The Chairman and Visitors," and Mr.

F. ANDREWS responded. Between the speeches Messrs. Moncrieff and Jameson contributed songs, Mr. F. Frampton dramatic sketches, and a substitute for Mr. E. J. Wood a comic song, all of which were much relished.

CHEMISTS' AND DRUGGISTS' SOCIETY OF IRELAND. NORTHERN BRANCH.

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A MEETING of this Society was hel at Belfast on February 28, when a lecture on "Human Physiology," with oxyhydrogen illustrations, was given by Mr. A. R. Hogg. Mr. James Hogg was in the chair, and the lecture was a very interesting and instructive one.

BRIGHTON JUNIOR ASSOCIATION OF PHARMACY.

THE Burroughs, Wellcome & Co. prize was competed for on Maich 7. The winning essay was written by Mr. Williams, and the subject was, "Teeth and their Decay." A second prize, presented by Messrs. Shelvey & Co., mineral-water manufacturers, Brighton, was awarded to Mr. C. Kent, for an essay on "Hydrogen." Five other competitors also entered—Messrs. A. E. Colman, "Microscope"; Clarke, "Chemistry of Digestion"; F. A. Crowhurst, "Hydraulics"; B. Jealous, "Railways: their Origin and Progress"; and Smith, "Electricity and Magnetism."

The judges were Messrs. W. H. Gibson, C. S. Ashton, and

C. G. Yates.

EDINBURGH CHEMISTS', ASSISTANTS', AND APPRENTICES' ASSOCIATION.

THE eighth meeting of the sixteenth session was held at 36 York Place, Edinburgh, on March 7—Mr. Alex. J. Dey, President, in the chair. The following communications were read:—

DISPENSING PERCENTAGE PRESCRIPTIONS.

By C. A. Macpherson.

Percentage prescriptions may be roughly divided into two classes—(1) those in which n parts are added to 100 parts, and (2) those in which n parts are contained in 100 parts. The following are examples of the first class:—

Ft. pulv.

In dispensing this, the thymol should be mixed with the carbonate of magnesia, and the carbolic acid with the chalk, and then all mixed together thoroughly.

In the foregoing examples the apothecaries' ounce and drachm are indicated, and the percentages are accordingly calculated upon their values; but in the following the Imperial ounce is to be used:—

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(4) Cret. precip. . . . . 1 oz. [= 437.5 grs.]
Camphor . . . . . 10 per cent. [= 43.75 grs.]
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So far, no difficulty has occurred; but when a prescription like the next one is presented, a doubt arises as to how the percentage is to be calculated:—

Where there is no special knowledge of the prescriber's intention, and in the absence of any generally understood rule, the better plan appears to be to follow pharmacopecial precedent—weigh solids, measure liquids, and calculate parts by weight in like parts by measure.

The first example of the second class is a logically true percentage preparation, and presents no difficulty:-

Acid. salicylic. .. Resorein. .. Adipis ad ..

Here the proportions are 2, 5, and 93—equivalent to 9.6, 24, and 446.4 grs. respectively in the ounce of 480 grs.

In the next set of examples, which contain solids and liquids combined, the same difficulty presents itself as in the last example of the first class, and for several reasons it is expedient to follow the procedure indicated.

Sol. hydrarg. bichlor. (1 in 500)

 $(437.5 \times 6) \div 500 = 5.25$, the number of grains of hydrarg. bichlor. required.

.. 2 per cent. (8) .. 5j. .. 3iss.

As $1\frac{1}{2}$ fl. oz. equals 656.25 grain measures, the quantity of menthol is 13.125 grs.

Glycerin. acid. boric. (12 per cent.) 3ij.

 $875 \times \frac{12}{100} = 105$ grs. boric acid.

Make 3j. application tannic acid and glycerine (10 per cent.);

 $437.5 \times \frac{10}{100} = 43.75$ grs. tannic acid.

Sig.: A teaspoonful added to $\frac{1}{2}$ pint of water = 1 in 800.

Here we have first to ascertain the quantity of ammon chlor in a teaspoonful of the solution, and from that the amount required for the 2 oz. $(437.5 \times 10) \div 800 = 5.46875$, the number of grains of ammon. chlor. in the teaspoonful, which multiplied by 16 gives 87.5 grs. as the total amount

In making carbolic-acid preparations the difficulty arises in using crystallised acid as to whether it should be weighed or melted and measured. The better way seems to be to weigh it, and make up to the required measure with the required solvent. The resulting product will be practically identical in strength with one made from the official liquefied acid by measure.

(12)Make 2 oz. of a 10-per-cent. sol. carbolic acid in equal parts o water and glycerine.

This can be made by using 87.5 grs. of crystallised or 96 minims of liquefied acid, and making up to 2 fl. oz. with a mixture of equal volumes of water and glycerine. In like manner the following may be dispensed :-

(13)Lot. carbolic. (1 in 40). Mitte 3vj.

 $(437.5 \times 6) \div 40 = 65.625$ grs. crystallised acid; $(480 \times 6) \div 40 = 72$ mins. liquefied acid. But crystallised acid alone should be used for the next one :-

Ol. carbolic. (10 per cent.) ... (14)

For this 131.25 grs. of acid are required, together with sufficient oil to make up the measure of 3 fl. oz.

Another way of ordering the class of preparations now being considered is to prescribe a definite weight of solid in a definite volume of liquid.

Make 3j. sol. atrop., $\frac{3}{50}$ gr. in every 10 mins. Sol. atrop. sulph. $(\frac{1}{50})$ et morph. acct. $(\frac{3}{10}$ gr. in 5 mins.), 5iv. (16)

This is the preferable way, and one where there can be no dubiety as to what is meant. As much cannot be said for the following, where, owing to the quantities ordered and the purposes for which they may be required, the doubt may arise whether the percentage should be calculated on grain measures or minims:-

(17)(18)

(19)

The safer way would seem to be to make these according to the general rule already referred to, and calculate in grain measures, unless the prescription bears internal evidence that the prescriber intends a definite amount of active in- On adding the iron to the pimenta-water the mixture

gredient to be administered, as by hypodermic injection; then the percentage should be calculated in minims.

In the following it is difficult to make out what the prescriber's intention is:-

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Acid. borie. . . . . . . . . grs. 40
Glycerin. . . . . . . . . . . . 5vj.
Acid. salicyl. . . . . . . . . . ½ per cent.
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The simplest way seems to be to measure the glycerine, and on the combined weight of it and the boric acid calculate the required amount of salicylic acid.

In view of the importance of this subject to dispensers and students, as well as to the public, it would be well if some general rule for dispensing percentage prescriptions could be agreed upon; but better still it would be if practitioners in prescribing were to take care to leave nothing

In the discussion on this paper there was a general consensus of opinion that in the case of solutions the prescriber probably intends the solution to contain a given number of grains by weight in 100 minims.

THE STORAGE OF DRUGS AND CHEMICALS.

By Claude F. Henry.

The author drew attention to the practice of adding new stock to old in hand-bottles, stock-pots, &c. He specially referred to waters, concentrated infusions, ointments, fixed and essential oils, pills, extracts, and vegetable and metallic powders, pointing out the liability of each class to decompose, and in some cases to become inert, and in others to develop poisonous properties, if allowed to lie too long in stock.

THE ALKALOIDAL ESTIMATION OF FLUID EXTRACT OF CINCHONA.

By William Duncan.

In the estimation of this galenical preparation the solvent is apt to form an emulsion with the alkaline liquor, and the two liquids separate slowly and imperfectly. This may be avoided to some extent if a rapid rotatory motion rather than violent agitation is adopted. Even in experienced hands, however, and particularly with some samples, emulsification however, and particularly with some samples, emulsineation may take place. The difficulty may be minimised by modifying the official process as follows:—Take 100 fl. grs. of the extract, and dilute with distilled water to 1 fl. oz. Filter off $\frac{1}{2}$ fl. oz. (equal to 50 fl. grs.), and transfer to a separator. Then proceed as the Pharmacopeia directs. Extract of inchers being said the outbor had found to danger of cinchona being acid, the author had found no danger of alkaloid being precipitated with the resins and colouring-matter; any such risk may, however, be obviated if the extract be further acidulated by the addition of a few drops of dilute hydrochloric acid.

THE VOLUMETRIC ESTIMATION OF FERRIC SALTS.

By William Duncan.

In a discussion on the estimation of ferric salts which took place in the Association several years ago, the author had suggested that this might be done by estimating the amount of iodine, liberated from potassium iodide, when brought in contact with the salt, by means of sodium thiosulphate. This method had been adopted for all ferric salts in the new U.S. Pharmacopeia, and it was more expeditions. and quite as accurate as the gravimetric method. The solution of the ferric salt is acidulated with hydrochloric acid, excess of potassium iodide added, and the mixture kept for half an hour at 40° C. It is then cooled and titrated with $\frac{n}{10}$ solution of sodium thiosulphate, starch mucilage being used as indicator. The author gave a demonstration of the method.

DISPENSING NOTES. By William Duncan.

Iron Salts and Pimenta. - The following mixture invariably deepens in colour, finally becoming black: -

> Tinct. ferri perchlor. gr. xviij. Aq. pimentæ a:l ...

assumes a greenish-blue tint, quickly deepening to yellowish brown, and finally depositing a black insoluble precipitate. This result is a characteristic reaction of all phenols, and is due to the reaction between the ferric chloride and the eugenol of the oil of pimenta. The Pharmacopæia is not explicit enough in its directions for the preparation of the aromatic waters. More oil distills over than the water can hold in solution, and especially is this the case with pimentawater in question. Of course, the water can stand till the oil separates, but it is advisable to give more explicit directions

Nitrate of Silver and Cocaine.—In the following prescription for a throat-lotion:—

the prescriber is evidently alive to the incompatibility of the alkaloidal hydrochlorate with silver nitrate, and, therefore, orders the alkaloid. It is only sparingly soluble, but sufficiently so to reduce the silver salt. If the alkaloid be carefully neutralised with nitric acid before adding the silver nitrate, a perfectly clear and stable solution results.

MODERN BOTANY.

PROFESSOR J. REYNOLDS GREEN, Professor of Botany to Work on the Physiology of the Pollen-tube "to the Liverpool Biological Society, on March 9. The lecture described minutely the process of germination of the pollen-grain, which he said is easily observed under the microscope. If the grain be treated with a solution of chloral hydrate containing iodine, the grain is rendered transparent, and granules of starch contained therein are stained violet. There are a large number of starch-granules present, except in young grains, when there are few, if any. These starchgrains are seen to travel gradually down the pollen-tube, and slowly separate from each other; then, passing to the point of activity (the apex of the tube), their character becomes changed, first into dextrine, and next into sugar. This is beautifully seen in the pollen-tube of the lily: as the granules approach the apex their colour (violet) changes into red, indicating dextrine. Thus the pollen-grain ministers to the nutrition of its own tube. There are in the tubes granules which are not starch, and they are extruded from a very minute orifice at its apex. It is not an unreasonable hypothesis that these granules are enzymes, which play an important part in the nutrition of the tube. If the style of the lily be examined at the right age, it will be found that starch is being carried to it by the fibrovascular bundles, and then formed into small granules, providing in this way more nourishment for the pollen-tubes. This is observable in both longitudinal and transverse sections. Further provision for the nourishment of the tube is made in the form of malt-sugar—probably the result of the action of the enzymes on the starch-granules. At a certain age the enzymes are found to increase; also the starch exceeds what is found in the tube originally, and it is supposed that the tube stores away at first more nutritive matter than it requires, in order to provide for contingencies. In the pollen of the Zamia there is no starch, but if the tube be placed in a solution containing sugar—say, the pulp of the apple or pear—starch at once begins to form. Sugars (malt, grape, and cane) are frequently found in the tube instead of starch.

THE PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.

A MODERATE house met the President when he took the chair on Wednesday evening, at 8.30, half an hour later than usual.

Professor DUNSTAN had no easy task in tracing his way through the mazes and phases of the aconitine question, but he acquitted himself in a satisfactory fashion, and proved a reliable pilot.

A number of formidable-looking diagrams papered one end of the theatre, and a fine collection of aconite alkaloids, their salts and derivatives was also shown.

The lantern was employed to demonstrate the physical

characters of such of the preparations as lent themselves to this mode of exhibition, and the crystalline character of aconitine with its benzene ring-shaped figure, and the indefinite scale-like plates of aconine were well seen by their projection on the screen.

The "total alkaloids" of aconite form a brownish gummy-looking mass, which separation and analysis prove to be composed of (1) aconitine, which is crystalline, and giving crystalline salts; (2) aconine, not crystalline, but giving crystalline salts; and (3) benzoyl-aconine, which also is amorphous, though furnishing crystalline salts.

The physiological action of these alkaloids is being tried by Professor Cash, of Aberdeen, a friend of Professor Dunstan, and though his researches are not yet concluded, the results broadly are that aconitine is the toxic agent, whilst benzoylaconine has an action on the heart of a peculiar and unique character. This latter property is likely to have an important pharmaceutical bearing when fully worked out.

pharmaceutical bearing when fully worked out.

By the hydrolysis of isaconitine, or benzoyl-aconine—a normal constituent of Aconitum Napellus—aconine and benzoic acid are produced; Messrs. Wright and Luff, in 1878, said the hydrolysis of aconitine furnished them with the same derivatives, and they accordingly believed aconitine to be benzoyl-aconine.

Dunstan finds, however, that aconitine, though it furnishes isaconitine at first, when hydrolysed immediately proceeds a stage further, and yields acetic acid as well; and the constitution of aconitine is, therefore, more accurately rendered as acetyl-benzoyl-aconine.

The yield of acetic acid is always in the proportion of

9.25 per cent. on the aconitine taken.

Isaconitine is, therefore, aconitine less an acetyl group, and aconitine plus water = benzoyl-aconine and acetic acid.

When aconitine is heated dry, the acetyl group splits off

When aconitine is heated dry, the acetyl group splits off with OH to form acetic acid, and this decomposition was shown on the sheet, the acetic acid being collected in a tube, and its acid character found by its coloration of litmus and its effervescence with a minute crystal of sodium carbonate.

The alkaloidal residue is a new alkaloid—pyraconitine—which is crystalline, and furnishes crystalline salts. It is bitter, but gives no tingling, and is not toxic; it seems as if the toxicity of aconitine is bound up in some way with the acetyl group.

With a passing allusion to the aurichlor derivative, a small class of compounds of which the caffeine aurichloride was the first to be discovered, the hydrolysis of pyraconitine was

touched upon.

Pyraconitine is more easily hydrolysed than either of the corresponding alkaloids, and the change was forcibly seen when to a warm solution of pyraconitine a little caustic soda was added: an immediate voluminous precipitate of pyraconine and benzoic acid is produced, but after shaking for a short time both bodies dissolve again. Napelline, isaconitine, and the picraconitine of Groves were bracketed together as possessing the same constitution, benzoyl aconine, and in a few words Professor Dunstan related with satisfaction the progress of the research which had up to the present enabled him and his colleagues to track the constitution of the aconitine molecule from a C₃₃ compound to its lower derivative, pyraconine, containing only twenty-four carbon

Leaving the complicated chemical question, the Professor alluded to the ultimate bearing of the research on practical pharmacy, which is obviously that of producing standardised preparations of the drug.

Hinting that a method for the determination of the alkaloid aconitine and of the other alkaloids was well in hand, he did not commit himself to details, evidently keeping this as a bonne bouche for a later period of the session. He gave it to be understood, however, that the assay depended upon the estimation of the acetic acid produced as a measure of the aconitine.

Another portion is hydrolysed and the benzoic acid weighed; then by subtracting the equivalent of benzoic acid corresponding to the aconitine already found by the acetic-acid estimation the difference gives the alkaloids other than aconitine.

In concluding his lecture, Professor Dunstan said there was no such thing as pharmaceutical research; the principles of research must always be the same, and, based as they

were upon chemical and physical laws, good pharmaceutical research, so-called, could only be satisfactorily conducted by the up-to-date men who were competent to apply the recent developments of science in whatever direction, advance, or improvement seemed desirable. In a word, it is simply the application of scientific principles to pharmaceutical problems.

There was practically no discussion. The PRESIDENT alluded to the early work of Groves, which had been fully corroborated in the research laboratory, and indeed had formed part of the foundation upon which the a nite research had been raised. He paid a high tribute to the quality of the work done in the laboratory, and said hey were getting credit for it outside.

Mr. NAYLOR also eulogised the Professor, and congratuated him upon the satisfactory character of the work as compared with the investigations of other workers in the same field

Professor DUNSTAN said he was not to be drawn upon the German question; he had already alluded to it, and thanking the members for their patient attention, the proceed ags terminated.

S HEFFIELD PHARMACEUTICAL AND CHEMICAL SOCIETY.

At the general meeting of this Society, on Wednesday night Mr. W. KIRKBY, F.L.S., of Manchester, gave a lanter demonstration of the microscopical characters of some of the more important official drugs. He said that, thanks to the biological classes which are being established up and down the country, students were beginning to understand that the anatomy of plants was as definite as was the anatomy in the zoological kingdom, and pharmacopœists were heginning to make use of this knowledge for identifying drugs, and for the detection of adulterations of and substitutions for drugs. That this was a very great help would be readily understood when it was remembered how small a portion was really necessary for microscopical examination. In the course of his lecture he demonstrated very fully the value of the knowledge thus obtained, warning the memhers, however, against believing all they saw, or, tather, all they imagined they saw under the microscope, especially if they had been reading some of the sensational novels which pretended to treat of the subject concerned.

Personalities.

MR. JAMES BLACK, chemist, Leslie, N.B., has been elected a member of Leslie School Board.

AMONG the bequests of the late Mr. George Baggott Francis is one of 100l. to the Benevolent Fund of the Pharmaceutical Society.

MR. EDWARD EVANS, SENR, of Bronwylfa, Wrexham, senior partner of Messrs. Evans, Sons & Co., Liverpool, has been appointed High Sheriff for the county of Denbigh.

MR. E. Watson, chemist, Mayor of Beccles, last week entertained the Corporation employés, police-force, fire-brigade, and postmen—more than fifty in all—to a dinner at the White Horse Inn. Mr. Watson presided, and a merry evening was spent.

The biggest trader in the world, says Answers, is Philip D. Armour, Chicago's richest citizen. He is also one of the greatest manufacturers. In this capacity alone he employs 12,000 persons, pays 1,500,000l. yearly in wages, owns 4,000 railway cars which are used in transporting his goods, and has 700 or 800 horses to haul his waggons. Fifty or sixty thousand persons receive direct support from the wages paid in his meat-packing business alone, if we estimate families on the census hasis. He owns a greater number of grain-elevators than any other individual in either hemisphere; he is the proprietor of a glue-factory which turns out a product of 7,000,000 tons a year, and he is actively interested in an important railway enterprise. [Mr. Armour is a great pepsine-maker, but he does not employ all his 12,000 servants on that production.]

Trade Notes.

A LENGTHY illustrated account of the production and sale of Bovril, with portraits of the managers of that concern, appears in *Commerce* of March 7.

MESSES. H. & A. LUBSZYNSKI, who are advertising the helmet brand of "Metal Putz-pomade" to the trade, have removed their London offices from Chiswell Street to 4 Guildhall Chambers, Basinghall Street.

JEYES' SANITARY COMPOUNDS COMPANY (LIMITED), of 43 Cannon Street, have been appointed sole agents for the United Kingdom for "Symphorol," a new diuretic manufactured by the Farbwerke vorm. Meister, Lucius & Brüning, Hochsta/M.

MESSRS. BURROUGHS, WELLCOME & Co. have sent us a handsome coloured photograph representing Holhorn Viaduct with their own bold and stylish offices in the foreground. It is one of the best of the many artistic productions we have had from this firm.

MESSRS. RAIMES, CLARK & Co., of Edinburgh, have just published a booklet giving notes on the principal "modern remedies" together with particulars of their pharmaceutical specialities. They will send a copy free to any chemist who may apply for it.

THE Pharmacie Centrale of France (Messrs. Charles Buchet & Cie.), which is perhaps the largest wholesale pharmaceutical firm in the world, have just opened London offices for buying and selling at 86A Leadenhall Street, and 3 Creechurch Lane, E.C. Mr. A. Boisselier represents the house in London.

An advance copy of the new (sixteenth) edition of Squire's "Companion to the British Pharmacopæia" has reached us. It contains vastly more new matter than has been added to any previous edition, aggregating some 120 pages. This is of great pharmaceutical importance, and will demand careful reviewing. We understand the new edition will be on sale early next week. The price of the book is now 12s.6d.

WE have received from Messrs. John Richardson & Co., Leicester (Limited), a full report of the interesting proceedings on the occasion of their centenary last year, with finely reproduced photographs, in which are included portraits of the directors, representatives, secretary, and heads of departments engaged in the business of this company, and of the plate and address presented to the head of the husiness on that occasion.

MESSES. BLYTON, ASTLEY & Co., of Manchester, make a wise suggestion to the trade in an advertisement published on another page. It is that now that the season for spring medicines is coming on, chemists should make more effort than they usually do to secure this trade. Instead of buying a dozen or two bottles of, say, citrate of magnesia or effervescent saline, and packing these away in a case somewhere to be fetched when asked for, they say, buy a gross and make a show. You will buy cheaper, and you will sell a lot more. We have on previous occasions given advice similar to this ourselves. The public is a big child; it wants what it sees, and it does not know what it wants till it sees it. A hig show of one thing in a window will have more effect on trade than a score of little things, however artistically distributed.

TO MAKE CELLULOID FILMS on the small scale add 10 per cent. of camphor and ahout 2 per cent. of castor oil to ordinary collodion. Pour the mixture over glass plates, and dry in a current of warm air.

SUDDEN DEATH IN A CHEMIST'S SHOP.—Charles Sheppard (18), an employé in an Ipswich cigar-factory, was returning home ahout 6 P.M. on Friday last, accompanied by a mate. Feeling ill while proceeding along St. Matthew's Street, he entered Mr. Wiggin's chemist's shop, and sat down on a chair. Some brandy was administered, and it was specdily manifest that the young man was seriously ill. He suddenly vomited a great deal, and died soon after.

Legal Reports.

THE FARBENFABRIKEN VORM. FRIEDR. BAYER & Co. v. B. LAPORTE.

In the Chancery Division on March 9, before Mr. Justice North, Mr. Moulton, Q.C., moved on behalf of the plaintiff company for a writ that an attachment might be directed to issue against the defendant (who carries on business at Bradford) for contempt of Court in having, contrary to the order made in the action in July, 1891, infringed the plaintiffs' letters patent by selling a quantity of benzo-purpurine. Counsel said that it appeared from the affidavit of the plaintiff company's Manchester agent that the action of the defendant had deprived the plaintiffs of something like 2,000l. profits. The defendant's affidavit expressed deep sorrow for what he had done. He said he was tempted to take the course he had taken by reason of his fear that his business would be ruined, the pressure brought to bear upon him by the persons to whom he sold the dye, and the deli-cate health of his wife. The affidavit of Messrs. Heap, to whom dye was supplied, however, denied that they brought pressure to bear on the defendant, and said that they gave their order at the urgent request of the defendant. The fact of the injunction having been granted had been largely advertised, and if the terror of an injunction was insufficient to deter the defendant, he did not know how it was possible to protect the plaintiffs' rights but by the committal of the defendant to prison.

Mr. Ashton Cross, for the defendant, said he could not justify what his client had done, but having regard to the facts disclosed in his affidavit, and that the defendant was a foreigner and had made full disclosure of the persons to whom he had sold, and was willing to pay the full amount of the damage he had done, he (Mr. Cross) urged that the

extreme penalty might not be enforced.

Mr. Justice North said that if he declined to make an order as asked on this occasion, he could not picture to himself any case in which he would be justified in issuing a writ of attachment. Proceedings were taken against the defendant, and he personally went to the plaintiffs' solicitors and stated that he had infringed, and signed an undertaking to that effect, and agreed that the pending motion for an injunction should be treated as the hearing of the action. Judgment was to be taken for an injunction restraining him, during the existence of the patent, from infringing the patent, directing him to give an account, with particulars of infringement, and to pay a certain agreed sum in respect of damages down to that time. At the end of the document signed by the defendant was this:—"I admit the plaintiffs' solicitors pointed out to me it was unusual to negotiate terms excepting through my solicitor, but I stated I was determined to act on my own responsibility and settle the action on these terms." That was communicated to the solicitor, who appeared the next day, and an order was made in conformity with the terms agreed upon. It was idle, therefore, to say that the defendant was not present by his solicitor, and did not know what was being done on his behalf and against him. The injunction was granted three years ago, and now the defendant was charged with having sold 8 tons of the dye in question in breach of the injunction against him. The defendant made an affidavit in which, upon there being overwhelming evidence that he has done what he is charged with doing, he proceeds to plead guilty and to ask on that ground to be acquitted! He (Mr. Justice North) could not take any such course. There seemed to have been a flagrant and deliberate violation of what had been agreed upon, and he must make the order, with costs.

Mr. Ashton Cross asked that the drawing-up of the order might be suspended in consequence of the defendant's domestic circumstances.

The application was refused.

ILLEGAL SALE OF POISON .- A SECOND TRIAL,

In the Hull County Court, on March 8, before Judge Bedwell, the action of the Council of the Pharmaceutical Society against Mr. Hayton, 117 Wincolmlee, was re-tried.

Mr. Grey, who appeared for the plaintiffs, said this case was tried before the Court on December 6, when his Honour gave judgment for the plaintiffs. It appeared that the defendant had a summons served on him on November 10; and the return day on the summons was, owing to a clerical error of the court, put in as November 6. As it was served three days after the possible day, it must have struck the defendant as meant for December 6. The defendant did nothing until a notice was served on him for taxation of costs. His Honour said that, under the circumstances, a certain technical injustice had been done, and he must hear the case again. Mr. Grey stated the facts of the case, which were that defendant, as the proprietor of a business at 117 Wincolmlee, sold to an agent of the society twopennyworth of laudanum and twopennyworth of liniment, he being not registered, according to the Pharmacy Act, for the sale of poisons. Mr. Singleton (for the defendant) denied that he had ever sold poison. Mr. Hayton, in his evidence, bore out this statement; but his Honour, having heard all the facts, gave a verdict for the plaintiffs, with costs.

TINCTURE OR COMPOUND TINCTURE OF RHUBARB.

AT the Birmingham Police Court, on March 9, before Messrs. Fisher and G. Tangye, Frederick Johnson Richards, chemist and druggist, 157 Dudley Road, was summoned for selling tincture of rhubarb which was not of the substance and quality of the article demanded.

Mr. Masser, of Coventry, who appeared for the defendant, said the character and quality of the drug sold was not dis-

puted. It was sold by mistake.

The inspector proved having called at the defendant's shop on February 15, and asking for 4 oz of tincture of rhubarb, for which he was asked to pay 2s. During the day he had bought samples of the same quantity for prices varying from 10d. to 1s. 4d. He told the assistant who

served him for what purpose he required the sample.

Dr. Hill, the public analyst, said he analysed the sample, and found it contained only about 82 per cent. of the necessary ingredients. He put the percentage at 82 in order to be on the safe side, but in reality it was 80 per cent. In reply to Mr. Masser, Dr. Hill said he was not aware that there was an article of commerce known as compound tincture of rhubarb. He knew that, according to the old Pharmacopæia, there was such a tincture.

Mr. Fisher: Did the bottle bear the label, "Compound tincture of rhubarb"?

Mr. Masser replied that it did not. He admitted that there had been a mistake, and that the compound tincture should not have been sold. He explained that the mistake occurred in one of two ways. When defendant first entered business he had one bottle of the compound tincture sent him, and it might have been that there was a little of that left, and used in error; or, on the other hand, the wholesale firm might have sent him the compound tincture by mistake.

The defendant, in his evidence, said the bottle of com-

pound tincture he had sent him when he started business had been used up some time ago, and therefore the error must have been on the part of the wholesale firm in recently sending him the compound tincture in the place of the British Pharmacopœia tincture. He did not profess to sell the compound tincture.

Frank H. Alcock, analyst, said he had analysed the drug. in question, and found it was tincture of rhubarb according

to the London Pharmacopæia.

Mr. Fisher: Should you say it was tincture of rhubarb?

Witness: I should say it was.

Mr. Masser: Not according to the British Pharmacopæia, but according to the London Pharmacopæia? Witness: Yes. The taste of the latter drug is pleasanter,

and it is in more demand in some parts of the country. The Magistrates' Clerk: But Mr. Richards says he does

Questioned as to the relative medical value of the two-

drugs, the witness said he was not a medical man, and could not speak to their efficacy. Mr. Fisher: It is clear, is it not, that the compound

tincture is not so valuable?

Witness: I cannot say. Commercially there is very little: difference.

Cross-examined: Tincture of rhuharh and compound tincture of rhubarh were synonymous terms.

Mr. Fisher: What should be sold to a customer asking for

tincture of rhuharb?

Witness: It depends upon the custom in the district. I have not had the selling of it myself. I am in the manufacturing department.

Defendant, recalled, said he did not consider tincture and compound tincture were the same thing. The tincture was

the higher-priced article.

The Magistrates, in fining the defendant 31. and costs, said it was quite clear that the case had been proved. If the sale was due to an error, it was a very gross error, for which the defendant must hear the responsibility. It was most important that the public should be protected.

GERMAN YEAST NOT A FOOD.

AT Basingstoke Police Court last week a provision merchant, trading as Glanville & Co., was summoned, under the Sale of Food and Drugs Act, for having sold German yeast which was not of the nature, quality, and substance demanded by the purchaser, but contained at least 25 per cent. of starch. Mr. Sherwood, who appeared for the defence, contended that yeast was not a food within the meaning of the Act. He hased his argument on the recent case in which it was decided by Justices Hawkins and Lawrance that haking-powder was not a food. The Bench took this view, and dismissed the case. Notice of appeal was given on hehalf of the police.

THE ASSISTANT AND THE COMPANY CHEMIST.

In the Queen's Bench Division of the High Court of Justice on Wednesday, March 14, the case of Holl v. Wehster came hefore Justices Cave and Wright, sitting as a Divisional Court.

Mr. Tyndall Atkinson said the action was tried in the West Bromwich County Court on January 30, 1894. The learned Judge non-suited the plaintiff, and this was an appeal against that non-suit. The appellant asked that judgment should he entered for the plaintiff, or else that there should he a new trial. The action was one for fraud, and the fraud alleged in the particulars and claim was that the defendant Wehster fraudulently represented that he was a chemist duly qualified, and that he induced the plaintiff, by reason of that representation, to leave the situation which he had in London, and to hreak up his home and remove to West Bromwich, and hecome the manager of the New Supply Stores (Limited) in that town. The learned Judge did not enter into the facts of the case heyond seeing what the representations were. As soon as the representations were before him, he decided they were not of such a character as would give rise to any claim on behalf of the plaintiff. The facts were shortly these. The plaintiff, Mr. Holl, was a qualified chemist under the Pharmacy Act, and it appeared that Mr. Webster was the managing director of the New Supply Stores (Limited), carrying on husiness at West Bromwich. Mr. Webster held nearly the whole of the shares, with the exception of a few which were held hy relatives, and substantially Mr. Webster was the person who carried on the business under the name of the New Supply Stores (Limited). Mr. Wehster was not a qualified chemist at all.

Mr. Justice Wright: Has he assistants who are qualified? Mr. Tyndall Atkinson said that at the time covered by this case he had no qualified assistants, and having no qualified assistants of any kind he carried on the chemical and dispensing part of this business. He got into communication with the plaintiff with a view of his coming down and acting as manager, and his answers to interrogatories showed that he had heen several times fined for carrying on the husiness of a chemist not heing duly qualified. The learned counsel then read the correspondence, and said at the head of the letter of Mr. Webster were the words: "New Supply Stores (Limited), wholesale and manufacturing chemists, &c., J. V. Wehster, managing director, West Bromwich." He (Mr. Atkinson) said this involved the statement that Webster was a qualified chemist.

Mr. Justice Cave: How does this affect you?

Mr. Tyndall Atkinson said his client said it was highly unprofessional for an assistant chemist to go into a chemist's or dispensing place to assist a person who was not a qualified chemist at all, and it might possibly make him liable to penalties under the statute if he were to assist an nnqualified chemist who was carrying on husiness as a chemist.

Mr. Justice Wright said he thought it had heen held that,

although these stores could not he held to be chemists, they could carry on the husiness of chemists hy the assistance of

qualified chemists.

Mr. Tyndall Atkinson said the Act said it should not be lawful for any person to sell or keep open a shop for retailing or dispensing poisons, or to assume the title of druggist dispensing chemist, &c., in any part of Great Britain, unless such person should he a pharmaceutical chemist or a chemist and druggist within the meaning of the Act, or he registered under the Act. His client was induced to come into this situation on the representation that there was some person in charge who had been duly qualified.

Mr. Justice Cave: They would have heen breaking no law if they had carried on the husiness under his name.

Mr. Tyndall Atkinson asked if the representation did not amount to Webster being put forward as a chemist.

Mr. Justice Cave said that if the plaintiff went himself as

head chemist, that was got over.

Mr. Justice Wright said that against the plaintiff it was said that, though these people described themselves as wholesale and manufacturing chemists, they could be qualified to be wholesale and manufacturing chemists if they did not dispense. In the plaintiff's favour there were two little lahels about quinine tonic, which, it was said, represented Mr. Wehster as a family dispensing chemist.

Counsel for the respondents said these little labels were never sent to the plaintiff, and were no part of the repre-

sentation.

Mr. Justice Wright said there was not a shadow of a case. Mr. Justice Cave thought the learned Judge was right. An attempt had heen made to make more out of this than could possibly be sustained. The learned Judge quite rightly came to the conclusion that it did not amount to any representation that the defendants were duly qualified chemists.

Mr. Justice Wright concurred. The appeal was dismissed, with costs.

AN ANALYTICAL DISPUTE.

In the City of London Court on Wednesday, hefore Mr. Commissioner Kerr, Mr. Heinrich Helbing, analytical chemist, 63 Queen Victoria Street, E.C., sought to recover the sum of 1l. 1s. for making an analysis of certain eucalyptus oil for Messrs. John Burdon & Co., 56 Leadenhall Street, E.C. Mr. Greenwood appeared for the plaintiff, and Mr. E.B. Tattershall for the defendant.

In answer to the Court, Mr. Tattershall stated that the defence was that the analysis was not properly done, and that it was utterly worthless. Therefore they could not he

expected to pay for it.

The plaintiff was called, and he said that he was a Fellow of the Chemical Society. He was asked by the defendants to examine a certain sample of eucalyptus oil. This was done under the supervision of his partner, Dr. Passmore, and he sent the defendants a copy of his report. In cross-examina-tion he said that it was true that he had made other analyses of oil which was said to he similar to that which the defendants sent to him. He was not in a position to say that they were the same oils, although the defendants had stated that they were. It had heen stated that it was the same brand of oil, but he did not know if it was so. He analysed a great many samples of eucalyptus oil, and of course they varied a great deal. That was because the oils varied. He had tested eucalyptus oil for a Mr. Robinson, and the analysis was different to that which he sent to the defendants He was quite sure that they were not the same oils. He had analysed eucalyptus oil for Messrs. Burroughs, Wellcome & Co. The defendants had refused to pay him on account of the variations in the analyses. They wrote that a grave mistake had been made; all he could say was it was no mistake of his. The analyses showed that some of the oil contained as much as 67 per cent. of eucalyptol and others as little as 2 per cent. That was because the oils were different.

Mr. Tattershall said he would show that the oil all came

from the same cask. Such an analysis was of no use.

The plaintiff said it could not have been the same oil. There would not have been such an extraordinary discrepancy if they had been the same. Mr. Scammall came from the defendants to complain, and was very insolent.

Charles A. Wrench, an assistant to the plaintiff, produced

the remainder of the sample.

Dr. Francis Passmore said the analysis was made under his snpervision. Of course, analyses would vary very much.

Mr. Commissioner Kerr: Just as if I do not know that!

This is only wasting time.

For the defence, Mr. Mark T. Walker said the defendants had had a consignment of the "Lubra" brand of eucalyptus oil sent them. They sent a sample to the plaintiff to analyse. Mr. Robinson, who had been referred to, also had a sample, as well as Messrs. Burroughs, Wellcome & Co. the samples were sent to the plaintiff to analyse, and, as they varied from 67 per cent. to 2 per cent., the analysis was valueless. Only one tin was opened, so it must all have come from the same tin. He did not see the samples taken from the tin.

Mr. Commissioner Kerr said, then, the witness knew nothing about it. How could it be contended that the samples all came from the same tin? The witness must be talking nonsense. There could not have been such a variation as for one to show 2 per cent. of oil and the other 67 per cent. The last witness knew absolutely nothing about the matter.

Mr. Tattershall said he would take an adjournment, and prove the drawing of the samples from the same tin.

Mr. Commissioner Kerr said the defendants would have to

prove their case up to the hilt.

Mr. Tattershall said it appeared that the witness who would have proved that the samples were all drawn from the same bulk was in Melbourne. It would therefore be no use for him to ask for an adjournment.

Judgment was then entered for the plaintiff for the amount

claimed, and costs.

Business Changes.

MR. J. E. THOMAS has just opened a new chemist's shop in Walter Road, corner of Page Street, Swansea.

MR. W. J. EVANS has purchased the business carried on by Mr. Barlow at 9 Market Street, Faversham.

MR JOHNSTONE, chemist, Southampton Street, Camberwell, S.E., has disposed of his business to Mr. Powell.

Mr. Pugh, chemist, of Rushey Green, Catford, S.E., has disposed of his business to Mr. Morris, chemist, late of Hull.

MR. THOMPSON, chemist, of High Street, Putney, has disposed of his chemist's business to Mr. Wright, of the Broadway, Hammers mith.

MR. NEESON, chemist, of Wells Road, Sydenham, S.E., has disposed of his business to Mr. Dale, chemist, of Kirkdale, Sydenham, as a branch.

WINTON'S DRUG COMPANY are about to open a handsome new drug-stores at Westow Hill, Upper Norwood. The establishment is fitted with electric light throughout.

Mr. W. A. Wrenn, chemist, Taunton, has brought the business of Mr. E. J. Harris, at 5 East Street, Taunton. The business will be transferred to Mr. Wrenn's premises at 15 East Street.

THE business lately vacated by Mr. Arnold, chemist, at 131 London Road, Brighton, has been acquired by Messrs. Headland & Co., chemists, who will carry it on in addition to their other places in North Street and Western Road.

M. J. BEBOUD, proprietor of the "Grande Verrerie Lyonnaise" factory of pharmaceutical and chemical glassand pottery-ware, announces that he has disposed of his Paris firm, at 40 Rue des Blancs Manteaux, to M. Leonard Doffegny, his managing director, who will carry on the business under his own name as "Successeur de J. Beroud." M. Berond will devote himself entirely to the manufacturing branch of the business at Lyon.

TRADE-MARKS APPLIED FOR.

NY person who has good grounds of objection to the registration of any of the following marks should at once communicate with Sir Reader Lack, Comptroller-General, at the Patent Office, 25 Southampton Buildings, Chancery Lanc, London, W.C.

(From the "Trade Marks Journal," March 7, 1894.)

- "CACHETS DE CHLORALOSE" and "CHLORALOSE," device of bear on hind legs, wording and signature, on label; for a chemical substance used in medicine and pharmacy. By B. Bain & Fournier, 43 Rue d'Amsterdam, Paris. The essential particulars are the device of the bear and the signature. 176,894, 176,895.
- "JUJA"; for mineral and aërated waters. By E. Handslip, 36 Winchester Street, South Shields. 177,121.
- "PYRNOLRHM"; for a toilet-preparation. By H. Foster & Co., 34 Clement's Lane, E.C. 175,499.
- "GRECIAN BOUQUET" and representation of the blind girl Nydia; for a perfume. By Corbyn, Stacey & Co., 300 High Holborn, W.C. The essential particulars are the device and the word "Nydia." 176,784.
- "AMARYLLIS," and device of Cupid driving a bntterfly; for perfumery. By Blondeau et Cie., Ryland Road, London, N.W. The essential particular is the device. 177,527.
- "FOOTBALL," and device of a football; for perfumery and toilet-articles. By J. Crosfield & Sons, Bank Quay, Warrington. 177,745.

(From the "Trade Marks Journal," March 14, 1894.)

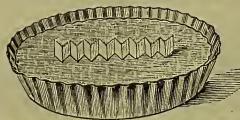
- "FIDDY'S MEDICATED DOG FOOD" and "NORWICH GAPE CURE," &c., and device of castle turret with flag-staff and flag, with initials "R. W. F." inscribed; for medicated preparations for dogs and pheasants, &c. By R. W. Fiddy, 27 and 29 St. Peter's Street, Norwich. The essential particular is the combination of devices. 177,129, 175,406, 177,130.
- "STOCO"; for medicine for human use. By J. P. Jeffcock trading as the Stopp Company, 104 Palace Gardens Terrace, Kensington. 178,201.
- "BOMA"; for a fluid beef. By George Mason & Co, (Limited), 417 and 419 King's Road, Chelsea. 178,188...
- "M. HAYDON & Co., EXETER"; for mineral and aërated waters, &c. By M. Haydon and A. A. Haydon, 1 Dean Street, Larkbeare, Exeter. The essential particular is the signature. 177,431.
- Device of egg, with letters, and facsimile signature and wording; for a preparation for the han. By Harding, Saponaceous Powder Factory, Sutton, Surrey. for a preparation for the hair. By H. The essential particulars are the device of an egg and the signature. 173,965.
- Device of a cross, and facsimile signature; for perfumed toilet soap and perfumery, &c. By A. Ludovic, Done Road, Margate. 176,422.
- Device of a padlock; for perfumery and toilet articles. By J. Bury, 63 Corporation Street, Manchester. 178,304.

A MAN WHO SHOULD NOT THROW STONES .- In Yokohama a unique building has recently been constructed by Dr. W. Vander Heyden. The walls are of glass boxes arranged in brick fashion and filled with solution of alum, which allows light to pass but intercepts certain heat-rays, the space between each layer being filled with felt. These boxes, which have now resisted during one year and a half the influence of cold and heat, and shocks of earthquakes, rest on cast-iron supports. The flat roof is supported by cast-iron pillars. Glass panes with strips of rubber between them form the horizontal ceiling; above this a trick layer of ashes rests, whereupon is a light framework of wood covered over with cement. This does not make the roof translucent, but it defends it well against radiant heat; and being made of bad conducting material, the heat of the interior is not lost. The four walls being totally translucent, there is more light than in any other description of dwelling. Special arrangements provide for ventilation and drainage.

KINGZETT'S PATENT

CANDLES FUMIGATING SULPAUR

ARE FAR AHEAD OF ALL OTHERS.



TRADE TERMS:

6d. Candles, 3/10 per doz. net. 1s. Candles (water jacketed), 6/10 per doz. net.

They are lighted with the greatest ease, and burn steadily and thoroughly, ensuring more secure Disinfection than any others.

SANITAS CO., LIM., BETHNAL CREEN, E.

SPECIALLY FOR CHEMISTS' USE.

FINEST MADE BEAUTIFÜLLY FOLDED. HOWARD'S SEIDLITZ. ENGLISH ACID,

per Gross.

HORA & CO., 47 Minories, LONDON

MUMFORD'S (FARRINGDON ROAD, LONDON, E.C.) THE BEST THAT CAN BE PRODUCED.

CRUSHED LINSEED

18/

1 owt. carriage paid; or 4.7, 14 & 28 lbs. free on rail Lond.

PURE STARCH POWDER 26/

1 cwt. carriage paid; or 4.7, 14 & 28 lbs. free on rail Lond.

PURE FULLER'S EARTH (Light Colour)

16/

1 owt. carriage paid; or 7, 14 & 28 lbs. free on rail Lond

PURE **FULLER'S EARTH** 1 cwt. carriage paid; or 7, 14 & 28 lbs. free on rail Lond

CARRIAGE PAID To Railway Stations within the radius of 200 miles from London (and allowance made for distance beyond) on 112 lbs. and upwards of above articles.

DAY'S BLACK DRINK

is the most popular and certain Veterinary Remedy in the World. Don't confound it with Elixirs, Draughts, &c., which for obvious purposes are called "Black." The title is a registered one, but many "black" things are offered in its name; the only genuine is prepared by

DAYS OF CREWE, Animal Medicine Specialists.

IMPORTANT TO CHEMISTS.

FOR MARCH.
See page 43 (bottom folio).

EVANS, LESCHER & WEBB, LONDON. | EVANS, SONS & CO., LIVERPOOL.

Savaresse's Sandal Wood Oil Capsules are now in White Enamelled Metal Boxes

JOFODEN GOMPANY.

DEPÔTS: * SHAD THAMES, ; LONDON, and at HULL.



OFFICES: 138. MINORIES. LONDON, E.C.

A FOOD, an Embrocation, an Antiseptic.

R. & N. POW Southwark,

LONDON, S.E. Estd. over 250 years.

Guarantee as to Purity attached to All Casks,

THE BEST

FOR INFANTS & IN

Medical Press and Circular.

" TX/E have submitted a number of FLETCHER'S CONCEN-TRATED LIQUORS to a prolonged test, and we have had THE MOST SATISFACTORY RESULTS. Both in flavour and in medicinal properties they were equal to the best preparation we could prepare from fresh drugs."

Editorial Comments.

CHEMISTS AND POISONS.

A VIGOROUS letter, signed by "A Sufferer," has appeared this past week in Birmingham, Leeds, and Nottingham papers, and probably in others. Quoting first the tragic death of Professor Tyndall and "the awful pathos of his dying sigh, 'You have killed your poor John,'" the writer says:-

Although this promiscuous hurrying into eternity, euphemistically termed "death by misadventure," has been rapidly increasing of late, I have not been able to detect the slightest movement or manifestation of interest-other than observant curiosity—on the part of those who are, morally at least, responsible. Every dabbler in drugs, every tyro in physics, even the messer in photography, is still permitted to leave his diabolical decoctions and pots of poison within the handy reach of his wife and children. The wholesale compounder of "death-by-the-gallon" is allowed to flood the country with his noxious nostrums, and the doctor—more directly interested than any—still prescribes, and sometimes dispenses, poison enough to accomplish "death by misadventure" to a whole household. All these poison-mongers deal in death either for their own personal pleasure or

Then he mocks at such little precautions as may have beenadopted :-

The plan of a red label affixed to a poison-bottle was probably the invention of a schoolboy, and the notion of a bluecoloured bottle as a safeguard is equally puerile.

He does not offer any suggestions from his own stores of wisdom to enable us to do more, but concludes by asking :--

Ought not some modified sort of responsibility to restupon those who, for their own pleasure or profit, deal in and dabble with deadly poisons? Are we for ever to read of this "death by misadventure"?

Of course, other sufferers followed suit, and replies from a number of chemists have been also published. We notice letters from Messrs. R. Reynolds and "Retail Chemist," (Leeds), W. R. Hedges and Martin Magor (Birmingham), and E. S. Waring (Nottingham), very properly explaining to the public the conditions under which poisons are sold by chemists, and the absence of them which often characterises the sale of them by other vendors.

The letters manifest the peculiar sensitiveness of the public mind to the risks of accidental poisoning—a sensitiveness which is natural and justifiable. And they prove, further, how the chemist's interest lies in giving every possible assurance to his *clientèle* of the careful provision he makes for the protection of his customers.

Probably a good half of the poisoning-cases reported, accidental and suicidal, occur with poisons not obtained from authorised vendors. And we are trying at this moment to make the Privy Council understand that the deliberate exemption of any poison from the regulations which govern the sale of others is a piece of recklessness which so inevitably ensures both misadventures and suicides as to almost require the epithet "murderous."

We have always urged, with all the energy at our command, that from every point of view—from that of self-interest as well as from that of humanity—chemists should give the public the benefit of their special knowledge, and do all in their power to protect them from their own carelessness in this matter of poisons. But chemists may do all that is possible for them to do, and then misadventures and suicides will occur. This is so obvious that it hardly needs saying. But every now and again somebody is allowed the opportunity of exhibiting the chemist as if he were responsible for them all.

The Norwood Magistrate, for example, whose ridiculous lecture to a chemist's assistant we report at some length in our News column, is a bad specimen of the fussy individual who thinks if everybody were as wise as he is the world would go on all right. He is a magistrate and a doctor of medicine, and yet in neither of those capacities does he seem to have acquired an elementary knowledge of the law which he is supposed to administer. But he oracularly disposes of the perfectly reasonable reply which the man he censures attempts to offer by calling upon him to express regret for a circumstance in which he is in no respect to blame.

AN UNCOMMERCIAL COCA-LECTURE.

AT the time of the projection of the Imperial Institute a strong feeling was expressed in the City that to be of any commercial value the building must be situated within the square mile of territory which comprises four-fifths of the mercantile community of the metropolis. "Business people," it was argued, "cannot afford time to travel to South Kensington and back for the purpose of comparing samples or elucidating some question of colonial mercantile custom, and the notoriously frivolous associations of the West-end must detract from the usefulness of the Institute as a commercial organisation." These critics may in future point to the lecture which was given at the Institute last week by Mr. Clements Markham as an instance of the correctness of their forecast. Mr. Markham is a distinguished man, and if he had read a paper upon a subject with which he is so intimately acquainted as the cultivation of coca at any reasonable hour within half a mile from Mincing Lane, he would have been sure of an appreciative and intelligent business audience. But if the Imperial Institute managers,

of malice prepense, had plotted to prevent such an audience from assembling, they could not have attained their object more effectively than by timing their lecture on a Friday, the mail-day of the week, at 4.30 P.M. at South Kensington. That they actually did choose such a day and hour is no credit to their business perspicacity. As might have been expected under such conditions, the audience was limited to the small band of faithful disciples whose orbit revolves round the President of the Pharmaceutical Society, a small knot of friends and F.I.l.'s, who appeared to take an interest in the proceedings from historical and archæological points of view, and a cluster of ladies. Perhaps the singular fascination which matters connected with the administration and effects of medicine exercise over the average female mind accounted for the presence of the latter. It is only fair to say that there was one business man there, but as he appeared to be identified commercially with dealings in borate of lime, it is somewhat difficult to see what benefit is likely to accrue to this great empire from his presence at a lecture on coca. The lecture-hall itself was scarcely happily chosen. It would comfortably hold, we should think, about 1,200 people, and the faithful five dozen were huddled in one of its corners, a small settlement in a huge red expanse of unpopulated territory. The President of the Pharmaceutical Society, in a grey suit, on a scarlet-draped platform backed by a light-blue screen, lent a tone of subdued colour to the proceedings, which would have been more audible had they taken place in one ef the many cosy "Conference Rooms" of which the Institute boasts.

The substance of the paper was interesting enough, and we have no doubt that much of it would have been quite new to a City audience, although students of pharmaceutical history may have been familiar with several of the passages. If the Chamber of Commerce, or some such body, should invite Mr. Markham to read the paper again under its auspices, which we hope will be the case, the lecturer will perceive the difference between such an audience and that which he addressed on Friday last. We know of no one more entitled to speak with authority on subjects connected with South America than Mr. Markham, who has devoted half a lifetime to researches into the history of the Inca civilisation, and the Spanish conquest, not to mention his official journeys in search of Sonth American economic products. We are sincerely glad that Mr. Markham lent no support to those persons (whose name is legion) who are always crying out for the acclimatisation and wholesale cultivation of no matter what exotic product within the limits of the empire. No doubt it is gratifying that cinchona-bark, ipecacuanha, coca, and other drugs should be cultivated on British soil. But there is no sense in growing an economic product within the red-coloured portions of the map merely for the sake of saying that such an article is produced in British colonies or dependencies, as many planters know to their cost. The coca industry is an excellent illustration of this reprehensible tendency to drag a sham patriotism into a question which is merely one of £ s. d. When cocaine first became a large article of trade dozens of articles were written in scientific and commercial journals urging planters in the British colonies to take up the cultivation of the coca-shrub. Several growers have followed that advice, but not one has made it pay. In text-books no doubt we find it stated that coca is grown in Jamaica, Mauritius, India, West Africa, Trinidad, Ceylon, and so forth, but, as a matter of fact, some of these countries have never exported one single pound of the drug, and in Ceylon and India, the only ones where coca-growing has been seriously taken up, the industry is now practically dead. The reason of this is that the demand for coca in Europe is restricted and must always remain so, and that so long bas Peru and Bolivia continue to produce it with the care and to the extent they have done for centuries, no other country will be able to compete with them successfully. The statement of the Peruvian Consul concerning the exportation of coca-elixir points to the time when the shipments of leaves from South America will be still further curtailed and the bulk of the drug reach us either in the shape of its alkaloid or as an extract.

In his concluding remarks Mr. Carteighe expressed the hope that Mr. Markham would, at some future time, see fit to write down his experiences while travelling in Peru in search of cinchona, and publish them to the world "in one volume, or even in two." We presume that sentiment was intended as a compliment, but in view of the fact that the two works in which Mr. Markham did enshrine the experiences alluded to have for twenty-five years or more adorned the Pharmaceutical Society's library-shelves among other standard works on cinchona, the general opicion will, doubtless, regard it as one of the "things one would rather have left unsaid."

NO MILLIONS IN IT.

The subjoined advertisement is cut from the $\mathit{Kidderminster}$ $\mathit{Times}:$ —

DRESCRIPTIONS Translated from Latin into English, by a dispenser.
Guaranteed accurate. Save the chemists' extortionate profits.—
'Enclose postal order, 1s., and stamped envelope, to Charles Aubrey,
16'South Street, Worcester.

Mr. Aubrey's name doss not appear on the register of chemists and druggists, but we have no doubt his classical attainments are equal to any strain that may be put upon them by responses to this advertisement. We have noted this advertisement or one like it before, and we have pleasure in giving free publicity to it. We should be obliged if Mr. Aubrey would return the courtesy by telling us how much business there is in this enterprise.

A NEW CARBON SULPHIDE.

Professor von Lengyel, of Budapesth, has discovered, in the course of a research on carbon disulphide, a new sulphide, which has the formula C₃S₂. A very small quantity of it was obtained as a deep red liquid, which possessed an intensely tear-exciting odour, a trace of the vapour producing a copious flow of tears, accompanied by violent and persistent catarrh of the eyes and muoous membranc. A drop of the liquid at once blackens the skin. Its specific gravity is 1.2739. When heated it polymerises into a hard black substance. Analyses both of the liquid and of the black solid indicate the same empirical formula, CaS2, and molecular weight determinations of the liquid, dissolved in benzene, by Raoult's method, agree closely with the molecular weight corresponding to that formula. The liquid spontaneously changes in a few weeks into the more stable black solid modification. The solutions of the liquid in organic solvents likewise slowly deposit the black form. It combines readily with six atoms of bromine, forming C₃S₂Br, which has a remarkably pleasant aromatic odour, so that two substances of frightful odour thus unite to form an agreeably odoriferous compound.

OKLAHOMA PHARMACY.

It seems but as yesterday since we gave an account of the first pharmacist who settled at Oklahoma, a portion of whilom Indian territory thrown open for settlement a couple of years ago. There was at that time a numerous horde of disappointed agriculturists, "busted" tradesmen, and adventurers of various kinds, waiting on the frontier for the signal to invade the reserve and peg out claims. If we member rightly, the first Oklahoma pharmacist secured

an cligible corner plot by the simple process of rolling the drunken original jumper of the claim, who had fallen asleep, off the plot, and spending the night in his place, revolver in hand, and wrapped in an old blanket and pleasurable thoughts of the future greatness of his yet unbuilt store. To-day, however, Oklahoma possesses a regular Board of Pharmacy, which meets periodically at El Reno, conducts examinations, and has its "corner" among the "College and Society" notes of the *Druggists' Circular*. Pharmacy still seems to boom in Oklahoma, for twenty new candidates were admitted by the examiners during their last session.

EUROPEAN TRADE WITH THE UNITED STATES.

FROM the United States Government Press a return has just been issued showing the principal exports, in 1893, to the States from all the consular districts abroad. Unfortunately, the return does not give comparative figures relating to preceding years, and we cannot judge, therefore, what increase or decrease there has been in the American trade of the consular districts. From the consular district of Nice \$193,000 worth of perfumery were exported to the States in 1893; Marseilles sent \$247,000, Bordeaux \$94,000, and Paris \$163,000 worth of drugs and chemicals. Of optical and scientific instruments \$571,000 came from Paris, together with toilet-articles and perfumery valued at \$491,000. Bremen sent \$60,000 and Hamburg \$480,000 worth of drugs and chemicals, but this does not include the enormous exports of other German centres of special industries. From the Leipzig district, for instance, came \$254,000 worth of essential oils, from Mannheim \$2,687,000 from Mainz \$528,000, from Stuttgart \$131,000, and from Barmen \$760,000 worth of chemicals-mostly, no doubt, aniline dyes. Brunswick has a special American trade in muriate of potash (\$210,000), Dresden in photographic paper (\$284,000), Dusseldorf in platinum (\$319,000), and Nuremburg in brushes and hair peneils (\$81,000) and mathematical instruments (\$64,000). Leghorn shipped \$23,000 worth of orris-root, and Messina \$465,000 worth of "essences." The United Kingdom also, has a few of these special industries in the drug-line. Ginger ale, for instance, was exported from the Belfast district to the extent of \$128,000, Kidderminster sent \$37,000 worth of sauce, Cork \$2,700 worth of magnesia, Falmouth provided the States with arsenic to the tune of \$35,000, and Plymouth with \$66,000 of the same article, and Hull with \$36,000 worth of colours. In "drugs and chemicals" London is facile princeps with \$2,000,000 worth of exports, besides which she sent of gums \$342,000, spices \$596,000, quicksilver \$377,000, soap \$261,000, mustard \$218,000, and antimony \$205,000. The "chemical" exports of the chief British centres were:-Newcastle, \$375,000; Manchester, \$658,000; Liverpool, \$8,527,000; Huddersfield, \$115,000; Glasgow, \$344,000; Birmingham, \$158,000; and Bristol, \$40,000. It is worth noting that the value of the chemical exports to the States of the Liverpool district alone exceeds the total of the entire exports to that country of drugs, perfumery, soaps, aniline dyes, and scientific instruments of the whole European Continent. It is, perhaps, rather a misfortune for this country that she possesses a few industries-coal, iron, shipping, alkali-of such overwhelming importance that she is tempted, by their existence, to neglect the smaller but, perhaps, in the long run, more remunerative industries that are flourishing in Germany and France.

A DIFFERENCE BETWEEN SALT AND SODIUM CHLORIDE.—A boy asked his father if there was any difference between common salt and chloride of sodium. "Yes," was the reply; "salt is a penny a pound at the grocer's, while chloride of sodium is a shilling a teaspoonful at the druggist's."

MR. CLEMENTS R. MARKHAM, F.R.S., ON "COCA-CULTIVATION."

AT the Imperial Institute on March 10, Mr. Clements R A Markham, F.R S. (President of the Royal Geographical Society), read an interesting paper on "Coca-cultivation." Mr. Carteighe occupied the chair, and the audieuce, which included several ladies, numbered about sixty. The lecturer introduced his subject by referring to the extraordinary fertility of the river-washed valleys of Peru and the American west coast generally, and to the ease with which vegetable products introduced by the Spaniards became acclimatised in this part of the world. The olive-tree was introduced into Peru by Antonio de Ribera in 1560. One of the young plants was stolen out of his garden, and became the parent of all the olive-trees now growing in Chile. vine had been acclimatised in Peru earlier still, the first enttings being brought over from the Canary Islands in 1551. Grapes of excellent quality were now grown in Peru. Sugar, now one of the chief articles of export, was also introduced about the middle of the sixteenth century. Most European vegetables throve with wonderful luxuriance. The Inca Garcilasso de la Vega, one of the principal historians of Peru, had a story about a radish growing near Arica which was so large that five horses could be tethered under the shadow of its leaves. From radishes and olives the coca was approached by way of the cinchona-tree, in the introduction of which into the Eastern world Mr. Markham played so prominent a part. The lecturer pointed out that the object of the Government in introducing that valuable tree into India was not to play into the hands of planters or speculators, but to reduce the price of quinine to a figure at which the remedy should be accessible to the poorest native, and that object, he was happy to say, had been fully attained, although the commercial classes interested in the drug could scarcely be expected to sympathise with this aspect of the question.

As regards coca, Mr. Markham many years ago had acquired considerable knowledge of its cultivation as well as experience of its action, long before its alkaloid was used pharmaceutically. For centuries the leaf had been used by the natives of parts of South America for chewing, in the same way that kava-kava was employed in Polynesia and betel in the East; but in Europe, excepting among students of the chronicles of the Spanish Conquest, very little was known of it until quite recently. A notable exception to this ignorance, however, was found in the case of Abraham Cowley, the poet of Charles I.'s reign, who had heard of the coca and referred to it in one of his books, "Of Plants," of which the lecturer quoted a lengthy excerpt. Among the Peruvians coca was held in the highest veneration; religious offerings of it were made to the Sun, the Huillac Umu or High Priest chewing the leaf during the ceremony. After the Spanish Conquest the snbjugators of Peru tried their best to abolish the coca-chewing habit of the Indians as a vile and impious custom, and at the Second Ecclesiastical Council of Lima, in 1569, the use of the leaf was strongly condemned. Nevertheless, coca-chewing also found able defenders among the Spaniards, and gradually many of the conquerors adopted the coca-chewing habit from the Indians. In 1569 the Spanish Government forbade the collection of coca by the Indians, on the ground of the unhealthiness of the valleys in which the gathering took place; but this prohibition could

not be effectively carried out.

Eight millions of the human race use coca. The plant grows in the hot, moist Eastern valleys of the Andes, and is mostly cultivated in terrace-gardens, often not more than 8 or 10 feet wide, and of which sometimes as many as 100 are placed one above the other on the mountain slope. The plant is from 4 to 6 feet high. It is raised from seed sown in December or January, at the beginning of the rainy season, which continues until April. In the following year the plants are transferred to specially-prepared ground, and at the age of eighteen months the first harvest, quita calzon, is gathered. The plants continue to yield for about forty years, three or four crops being gathered each year. The largest crop is in March, after the rains; the smallest at the end of June. The leaves are called matu when green, and only acquire the name of coca after drying,

donc in thc with which sun internal trade of coca in South has always been very large; at the end of the eighteenth century its value in the Peruvian viceroyalty (including that of Buenos Ayres, the modern Bolivia) was reckoned at over \$2,500,000. In South America it is generally considered that the coca-leaf can be kept for five months, after which it loses its flavour.

In Peru no Indian was ever seen without his chuspa, or coca-bag, of red and blue cloth, slung over his shoulder. As a rule, the native chews three times daily, placing the leaves in his mouth one by one, rolling them into a ball, and adding carbonate of potash mixed with lime and water, or taking them in the form of cakes, or llipta. Two ounces of leaves daily is an average allowance. As regards the effect of coca, there could be no doubt that it enabled the natives to bear enormous fatigue. A case was on record of an Indian who, stimulated by coca, performed the journey from La Paz to Tacna (a distance of 249 miles, including the ascent of a mountain pass 13,000 feet high) and back in four days, resting only one day at Tacna. Damp coca-leaves were applied to the forehead as a cure for headache, and in Huanoco it was believed that if a dying person showed that he could taste a coca-leaf placed upon his tongue, that was a snre sign that he would go to Paradise. Mr. Markham's own experience of coca-chewing was highly satisfactory, and he related that in 1870, when meeting the late Sir R. Christison, then an octogenarian, in Edinborgh, that eminent physician told him that by using coca he could ascend Arthur's Seat with ease, and foretold a great future for the leaf in therapeutics. Since 1884, when the discovery was made that cocaine, the alkaloid isolated by Niemann 1860, produced local anæsthesia, the consumption of the leaf had increased largely. Through the agency of Kew Gardens the coca-leaf had been acclimatised in India, Ceylon, Jamaica, Java, and the Mauritins.

It had been shown that, though the plant could be grown from sea-level to an altitude of 6,000 feet, that grown at the highest altitudes yielded most cocaine. The largest percentage of the alkaloid on record was 0.8 per cent., of which

0.45 per cent. was crystallisable.

Peru will always be able to snpply the world's requirement of coca, and there is therefore no probability that cocagrowing will ever become an industry in other countries, excepting so far as India, for the purposes of consumption in that country, is concerned. In one place in Pern'a coca was grown which was never met with on the European market, but had a high reputation in South America on account of its excellent green-pea flavour. This leaf was the produce of shrubs grown above the snow-line of the Andes. In conclusion Mr. Markham laid stress upon the debt of gratitude owing by the modern world to the Peruvian Incas for the care and intelligence with which they fostered the

cultivation of economic products.

Among those who took part in the discussion were Sir Geo. Birdwood, Mr. Arthur Robottom (who improved the occasion by hauding around a specimen of borax), Mr. Joseph Ince, Mr. Martindale, Mr. Holmes, and Sr. Pezet, the Peruvian Consul. The last-named geutleman gave some interesting statistics of the coca-trade of Peru. interesting statistics of the coca-trade of Peru. The total value of the coca-exports in 1892, he said, was 120,727 soles, representing 128,543 kilos. of leaves, of which Germany took 86,000, the United States 22,000, and England 1,380 kilos. Of cocaine the exports were 3,300 kilos., worth 195,000 soles, all of which, with the exception of 154 kilos., went to Germany. Of "coca elixir" made in Cuzco, 60 dozen bottles were shipped in that year—all to England. Sr. Pezet then spoke of his per-onal experience of the value of coca as a stimulant in the war between Chile and Peru (1879–83), in which he fought and when while engaged in the nitratewhich he fought, and when while engaged in the nitrate-desert of Tarapaca, he and his men often had nothing but coca to eat for two or three days. Last year during the English manœuvres Lord Wolseley experimented with coca. Many of the men would not chew the leaves, but those who did found them a great relief in their fatiguing marches. At the close Mr. Carteighe proposed a vote of thanks, casu lly making the singular observation that the history of Mr. Markham's cinchona-expedition was "almost a romance," and that he hoped that one day Mr. Markham would put his experiences on that trip in one or two volumes and publish them to the world.

THE SOMERSET-HOUSE CHEMISTS.

DR. JAMES BELL, C.B., F.R.S., who has recently retired from active service as the principal chemist of the Inland Revenue lahoratory, occupied that post since 1874. He took high honours in the chemistry classes of University College in 1849-51, and commenced his active career at Somerset House as assistant to Mr. George Phillips, then the chief



chemist to the Board. In addition to his post as principal of the lahoratory, Dr. Bell held, until recently, the appoint ments of chemist to the Indian Government, inspector of lime or lemon-juice for the supply of the merchant navy under the Board of Trade, and chemical referee under the Sale of Food and Drugs Acts. He is the author of several chemical and other handbooks in connection with work at Somerset House.

Professor T. E. Thorpe, F.R.S., the new principal chemist of the Inland Revenue laboratory, has a scientific record



which fully justifies his selection, and a reputation hy no means confined to the metropolis, where he has held the

professorship of chemistry at the Normal School of Science and the Royal School of Mines, for he has filled similar positions at Glasgow and in the Yorkshire College at Leeds, and elsewhere, while his works on "Qualitative and Quantitative Analysis," "Inorganic Chemistry," and other subjects, have attained the position of scientific classics. He was trained under Sir Henry Roscoe.

under Sir Henry Roscoe.

Mr. Richard Bannister, long Dr. Bell's second in command, is a Staffordshire man, and has been for thirty years connected with the Inland Revenue. Mr. Bannister commenced to serve her Majesty in the "outdoor," or survey, department of the Inland Revenue, and was promoted to the indoor branch hy competitive examination. When Mr. Bannister became connected with the chemical department there was no regular laboratory service such as now exists.



The analytical staff at that time consisted only of Mr. George Phillips (whose portrait adorns the wall of Mr. Bannister's room, and whose knowledge as a scientist the present occupier of that apartment is never tired of extolling), and one assistant, carrying on their work in Old Broad Street. In 1869 the chemical work had grown to such dimensions that a special laboratory was established, and placed under the control of Dr. Bell, who had acquired his chemical education at King's College, and who, up to that time, had also been connected with the "outdoor" service.

The Heavy-chemical Industry in Russia.—In former years Russia was one of our hest customers for heavy chemicals. She is so no longer, and although an appreciable quantity of alkali is still shipped to her ports there are signs that the trade will wholly come to a stop in a few years. A large ammonia-soda works was erected in the Empire a few years ago, and in 1892 the firm of Ljubimoff, Solvay & Co., to whom it helongs, opened a second factory at Lisitshansk, in the government of Ekaterinoslav. This factory already turns out 1,000,000 poods of soda ash a year, while the first-estahlished works (at Beresniki, in the government of Perm) produce 700,000 poods of soda ash and 400,000 poods of caustic soda annually. The whole of this quantity is consumed in the country, which, hesides, imported in 1892 400,000 tons of German-made soda ash. This practically covers the requirements of the country, only small consignments heing still purchased in Britain. The total consumption of caustic soda in Russia is about 1,200,000 poods a year, of which the Beresniki works turn out one-third, the residue being mainly imported from the United Kingdom. In 1892 caustic soda was imported for the first time from Germany. The quality is satisfactory, and if a satisfactory commercial treaty can he arranged the trade is pretty sure to grow.

THE VINEGAR QUESTION.

MR. ALLEN, the Sheffield public analyst, in his annual report to the West Riding County Council, deals exhaustively with the question of the adulteration of vinegar, and the difficulties experienced by analysts in certifying samples of the article. Mr. Allen says:—Analyses have shown that adulteration of this article has been extensively practised; hut much difficulty has occurred, owing to the absence of any authoritative definition of the term "vinegar." It cannot he contended that the origin and strength of all commercial vinegar is to he regulated hy the narrow definition of the British Pharmacopæia, nor would anyone contend that the term should be limited to wine which has undergone acetification, as the name, vin aigre, implies. A wider and generally more acceptable definition is that "vinegar is an acid liquid obtained by the alcoholic and acetous fermentation of a vegetable juice or infusion." This leaves it open to the manufacturer to make his vinegar from wine, cider, raisins, malt or other grain, and perhaps sugar or molasses; hut it excludes the various forms of distilled acetic acid, of which the so-called "pyroligneous acid" obtained by the distillation of wood is a type. This distilled acetic acid, which is wanting in the flavour and other essential characters of true fermentation vinegar, has been largely used for the adulteration of vinegar, and some firms, known as "vinegar-fakers," have, with the aid of an assortment of second-hand tuhs and other plant of a similar simple character, coloured this pyroligneous acid and sold it to the public as genuine vinegar. Such an article bears much the same relation to true vinegar that silent spirits bear to

genuine wine. By means of pyroligneous acid a "vinegar-faker" can concoct a factitious vinegar at a cost of something less than $1\frac{1}{2}d$. per gallon, and if he substitutes sulphuric acid he can make a "vinegar" at a cost of 2d. per 100 gallons. At one time the addition of sulphuric acid to vinegar was very common. It is not a fact, as sometimes alleged, that it was ever a legal addition. Before the abolition of the vinegar-duty in 1844, vinegar was taxed according to its strength, as ascertained hy its capacity to neutralise alkali, and the Excise used not to charge any duty on the sulphuric acid then commonly added with the view of preserving the vinegar, providing such acid did not exceed one part per thousand. Whatever justification there was for the addition of sulphuric acid to the badly-made vinegar of that period, there is now not the slightest excuse for its employment, and it is very rarely met with except in the article vended by one notorious "vinegar-faker," in whose product it is to be found to the extent of over one quarter. Just as the heer-hrewer has found that an equally good or hetter beer can he hrewed by using a mixture of malted and unmalted grain, so the vinegar-brewer has found it an improvement to substitute unmalted grain for a portion of the malt formerly employed. This heing the case, and it being impossible at the present time analytically to distinguish between a vinegar hrewed wholly from malt and one brewed from a mixture of malted and unmalted grain, the great majority of analysts have held that an article prepared in the latter manner complied sufficiently nearly with the definition of malt vinegar. But there are prominent vinegar-manufacturers making excellent vinegar who greatly reduce the proportion of malted and unmalted grain, and employ sugar and molasses as the leading material for the manufacture of their vinegar, subsequently selling this mixed article as "malt vinegar." It is contended on their hehalf that such a vinegar keeps better than one brewed wholly from grain, and that so long as the analyst cannot recognise the difference they have a right to call anything malt vinegar, even if the malt he wholly omitted from the materials of its manufacture. As there are four or five firms who hrew a vinegar wholly from grain, it appears unfair that manufacturers of a mixed article should take advantage of the popular taste or preference for malt vinegar while supplying an article prepared chiefly, if not wholly, from other sources. Mr. Allen states that several samples of vinegar largely manufactured from sugar had heen declared

sent a sample to Somerset House, which the manufacturers privately admitted to contain a large proportion of pyroligneous acid, and it was certified by the analysts to be genuine malt vinegar.

Deaths.

BEARD.—On December 22, 1893, James Collins Beard, chemist and druggist, late of Clevedon, Somerset. Mr. Beard was accidentally drowned while duck-shooting at Najamhie, Australia.

EARP.—On March 1, James Earp, chemist and druggist, Melbourne (Derby). Aged 76.

HUGILL.—Mr. Francis J. Hugill, the son of the head of the well-known firm of Meggeson & Co., London, died on November 5 at Bomhay, where he had arrived hy the P. & O. steamer Himalaya. Mr. Hugill was only 29 years of age, hut had already twice visited Australia for his firm. He was in excellent health and spirits from the time when he left home until he reached Aden, where he had an attack of malarial fever. The ship's doctor and another medical man who was travelling hy the steamer did all that was possible to relieve him, but when the steamer reached Bomhay he was too weak to walk off it, and was carried to the European hospital. Mr. Hugill's father was apprised hy cahlegram of the serious condition into which his son had sunk, and a request was forwarded to Dr. Mayer, M.D. (a friend of the family), to do all that was possible for him, but in vain.

LLOYD.—On March 10, at Broadhempston, Totnes, Margaret Elizabeth, the well-loved wife of Henry Lloyd, chemist, formerly of Dawlish. Aged 53.

SANDERSON.—On February 19, Mary Sanderson, chemist and druggist, Crowland. Aged 79.

THOMPSON.—On March 9, at Elmfield, Potter's Bar, Middlesex, Henry Ayscough Thompson, pharmaceutical chemist, of 22 Worship Street, E.C. Aged 75.

Bankrupten Beports.

Re JOHN WHITE, Netley Road, Southsea, Chemist.

At the Portsmouth Bankruptcy Court on March 8, hefore his Honour Judge Leonard, Mr. A. T. Ivens, solicitor to the dehtor, stated that in this case a receiving order had heen made, but a reversionary interest to which his client was entitled had enabled him to make a proposal to pay 20s. in the pound, and this had been carried out, and the amount, with full costs, paid to the Official Receiver. Mr. W. F. J. Hunt, Deputy Official Receiver, informed the Court that this was the case, whereupon his Honour rescinded the receiving order, and the hankruptcy proceedings came to an end.

Re H. E. MACDONALD MORTON, 81 Finshury Park Road, South Hornsey, Patent-medicine Vendor.

An application was made to Mr. Registrar Brougham, at the London Bankruptcy Court on Monday last for an order of discharge from these proceedings. The hankrupt was the person against whom an action had heen hrought some time since by Mr. Alahone. The accounts show liabilities

3981. 2s. 8d. and assets nil.

quently selling this mixed article as "malt vinegar." It is contended on their hehalf that such a vinegar keeps better than one brewed wholly from grain, and that so long as the analyst cannot recognise the difference they have a right to call anything malt vinegar, even if the malt he wholly omitted from the materials of its manufacture. As there are four or five firms who hrew a vinegar wholly from grain, it appears unfair that manufacturers of a mixed article should take advantage of the popular taste or preference for malt vinegar while supplying an article prepared chiefly, if not wholly, from other sources. Mr. Allen states that several samples of vinegar largely manufactured from sugar had heen declared by the chemists at Somerset House to he malt vinegar. He

think it was a case in which any condition affecting the bankrupt's future income ought to be affixed to the discharge. Order for two years entered accordingly.

Re Cornet, Jones & Co, 300 Lynton Road, Bermondsey, Chemical-manufacturers.

A RECEIVING-ORDER was made at the London Bankruptcy Court last Tuesday against Victor Cornet and Alice Jones, trading together under the above style. The petition was filed by Mr. C. G. Algar, acting on behalf of creditors, and no particulars transpired.

Re James Kimberley Twinberrow, 80 Wigmore Street and 71 Westbourne Grove, W., Chemist and Druggist.

AN application for this bankrupt's order of discharge was made to Mr. Registrar Linklater, at last Tuesday's

sitting of the London Bankruptcy Court.

Mr. C. A. Pope, Assistant Receiver, reported that the bankrupt filed his own petition in February, 1893; the accounts showing ranking nebts 1,101l. 1s. 4d., and assets estimated to produce 12,109l. 15s. 8d. Proofs had been admitted to the amount of 2,2441. 4s. 7d., the marked difference between that sum and the bankrupt's estimate being due mainly to various creditors entered in the statement of affairs as fully secured proving debts in respect of the balance due to them after deducting the value of securities held. The assets had so far realised 1,297l. 8s. 11d., the difference between the actual value and the bankrupt's estimate being accounted for maioly by the properties held by secured creditors not realising the value placed upon them by the bankrupt in his statement of affairs. A first and final dividend of 7s. in the pound had been paid, and there will probably be a small supplementary dividend. The bankrupt was formerly in partnership with his father, trading as chemists and druggists at 80 Wigmore Street and 71 Westbourne Grove. His father died in 1867, having, prior to his death, assigned the business to the bankrupt, subject to certain annuities to his mother and sister, both of which annuities ceased on his mother's death, which took place some time afterwards. Since the death of his father, and down to the failure, the bankrupt continued the business at both the above-named places. In 1862 the bankrupt was admitted a solicitor; but he never practised, and did no business as a solicitor except in family matters. The bankrupt was apparently very soccessful in the first years of his business, as in 1887 he had a capital of 18,000*l*. or 20,000*l*., saved out of his trading. About that the began to invest in building operations, entering into various building agreements with the option of taking leases or purchasing the freeholds of the various lands. The bankrupt invested the whole of his capital in purchasing the various freeholds of the property on which he was causing houses to be erected, and he raised further large sums on mortgage of the buildings. The bankrupt had stated that he derived an income of 5001, or 6001. from the said house-property over and above the interest of the mortgages; and that it was not until the last two years that he found any difficulty in meeting that interest. The bankrupt did not consider himself to be iosolvent having regard to the value of his house properties. His statement of affairs showed a large surplus, chiefly consisting of the value of such properties, which he stated that he had put down at a reduction of 400%, per house from their original worth. He attributed his difficulties to the recent great depreciation in the value of such properties, to his capital being locked up in them, and to his inability to sell them in order to enable him to meet pressing creditors. The bankrupt had produced a cash-book, ledger, and various other books relating to his chemist and druggist businesses, but no books of account showing the building transactions. The books, even relating to the business alone were imperfect. The cash-book did not contain a record of the bankrupt's drawings for the past twelve months of his trad-The creditors' accounts in the ledger had not been po ted for some months, nor had those ontered been cast. It was, therefore, impossible to verify from the books the statement of affairs as regarded the creditors' claims. He had kept no capital nor profit-and-loss account, nor any ledger account of his drawings, neither had he made out any alance'shoets. He had further admitted that the books did

not show the results of his trading. The only offence charged by the Official Receiver was that of imperfect books.

After hearing the report the learned Registrar said the bankrupt had undoubtedly under-estimated his liabilities and over-estimated his assets. There were substantial assets in the estate, and the discharge would be granted subject to the minimum suspension of two years.

Order entered accordingly.

Gazette

PARTNERSHIPS DISSOLVED.

Basker, J. A., and Service, J., under the style of Basker & Co., East Stonehouse, acrated and mineral water manufacturers.

Hart, J., and Schofield, E. H., under the style of Hart & Schofield, Oldham, veterinary surgeons and shoeing-smiths.

Spencer, A., Bullen, J., and Connor, J., under the style of Spencer, Connor & Co., Old Trafford, Manchester, mineral-water manufac-

Tweedy, C., and Brodrick, H. E., under the style of Tweedy & Brodrick, Northallerton and Knayton, surgeons, apotheearies, and acconcheurs.

Warren, A. T., and Myers, W. F., under the style of the Darwin-Scientific Food Company, Barking Side, Essex, animal and poultry food mannfacturers.

THE BANKRUPTCY ACTS, 1883 AND 1890.

RECEIVING ORDERS.

Abbott, Joseph, Exeter, chemist and dentist.

Cockrell, Ernest Lawrence (late trading as C. A. Remington & Co.); late Didsbury and Ohorlton-on-Medlock, Manchester, oil merchant and refiner.

Perkins, Frank, Harrogate, chemist.

ADJUDICATIONS.

Carroll, Moses, St. Helens, chemical-worker and greengreeer.

Jones, David, Cardiff, chemist.

Maddison, 'Thomas Harwood (described in receiving order as T. Harwood Maddison), Sinclair Road, Kensington, W., and Laundry Terrace, Fulham, S.W., snrgeon.

Sassy, Edwin Etty, Upper Montagu Street, W.C., late Gloucester Place, W., surgeon.

Winter, Caleb Hobbs, Starbeck, late Harrogate, manager for Winter's-Home for Chronic Diseases.

DEED OF ARRANGEMENT.

The following deed of arrangement with oreditors has been filed at the Bills of Sale Office, under the provisions of the Deeds of Arrangement Act, 1867. Some of these deeds are for the purpose of carrying out compositions with creditors (and snoh are specified below), but the great majority of them are "assignments" in the ordinary form, to a trustee or trustees, for the benefit of creditors. The Act referred to expressly provides that registration shall not give validity to any deed which is an act of bankraptcy, and there is no provision in the Act making any of these arrangements binding upon dissenting oreditors.

Bensley, George Henry, 2 Elton Road, Elton, Bury, druggist. Trustee, Philip Hayes, 25 Union Street, Bury, auctioneer and estate agent. Dated March 6; filed March 13. Unseenred liabilities, 5441. 2s. 3d.; estimated net assets, 601.; creditors fully seenred, 1201. The following are scheduled as creditors:—

				£	8.	đ.
Baiss Brothers & Co., London				15	5	3
East Laucashire Advance and In	vesti	ment	Com-			
pany (Limited), Bury				258	6	8
Ellis, Crompton & Co., Bolton				15	17	0
Hanger, Watson & Harris, Hull				10	7	6
Harriet, Mary B., Wells				50	0	0
Hirst, Brooke & Hirst (Limited), L	eeds			26	5	5.
Hockin, Wilson & Co., Manchester				15	8	8
Jewsbury & Brown, Manchester				17	7	6
Kay, William, Bury				66	13	0
Osborne, James E., Wakefield				13	0	0
Schofield, Ezra, Gainsborough				16	0	0
Summer & Co., Liverpool				26	13	9

Rew Companies.

HENRY CULVERWELL (LIMITED).—Capital 2,000*l*, in 1*l*. shares. Objects: To acquire the business of H. Culverwell, of East Street, Taunton, and to carry on business as aërated water and cordial manufacturers, beer dealers, and aërated and mineral water agents, &c. The first directors are not mentioned. Qualification, 10*l*. Registered office, East Street, Taunton.

STANDARD MALT-EXTRACT COMPANY (LIMITED).—Capital 15,000*l.*, in 1*l.* shares. Objects: To manufacture, produce, make, deal in extracts, essences, products, &c., extracted, made, or manufactured for any kind or nature of cereal. The first directors are:—F. D. Muir, Brunswick Street, Liverpool, corn merchant; W. H. Walker, 42 Castle Street, Liverpool, accountant; and E. Paul, jun., Brunswick Street, Liverpool, corn merchant.

TRESOR COMPANY (LIMITED).—Capital 1,000*l.*, in 1*l.* shares. Object: To carry on business as patent-medicine vendors, chemists and druggists, herbalists, druggists' sundriesmen, wholesale and retail chemists, &c. The first subscribers (who take one share each, with two exceptions) are:—J. Smart, 34 Ronald's Road, N., accountant (10 shares); Anna Berghegger, Dovercourt, spinster (10 shares); J. Crosby, Manor Lane, Dovercourt, dealer; W. Robinson, Manor Lane, horticulturist; Matilda Robinson; Joseph Crosby, Dovercourt, bailiff; A. H. Alfoud, 34 Ronald's Road, N., draughtsman. The two first-named subscribers are the first directors. Qualification, 10*l*.

WILLS OF DECEASED CHEMISTS.

The will of Mr. William Dykes Meredith, chemist, of 92 Packington Street, Islington, who died on November 12, 1893, has been proved at the Principal Probate Registry by the executors, Mr. A. W. Martin, chemist, of 51 Grafton Terrace, Maitland Road, Haverstock Hill, and Mr. George Brinsley, auctioneer, of 30 New Bridge Street, E.C., by whom the value of the personal estate and effects was sworn at 2051. 12s. 1d. and no more.

The late Mr. Hugh Williams, of Nechells Park Road Birmingham, retired chemist and druggist, having died on October 2, 1893, intestate, letters of administration to his personal estate have been granted at the District Probate Registry to his widow, Mrs. Anne Williams, the Law Guarantee and Trust Society being her security for due administration of the estate. The gross value of the personalty amounted to 2,484*l*. 10s. 4d., and the net value to 2,448*l*. 4s. 3d.

The will, dated November 2, 1888, of Mr. Charles Woolcott, 49 The Parade, Leamington, homocopathic chemist, who died a bachelor on July 4, 1893, has been proved at the Principal Probate Registry in London by Mr. W. Woolcott, of Chaseleigh, Croydon, a brother and sole executor of the deceased. The gross value of the personalty amounted to 5111. 148. and the net value to 4251. 78. 8d. Subject to a legacy of 351. to his faithful housekeeper, Fanny Wallsgrove, bequeathed by a codicil of June 16 last, the testator leaves the whole of his property, real and personal, to his aforementioned brother.

The will, dated October 7, 1892, of Mr. Richard Douglass, of Coventry, chemist and druggist, who died on February 28, 1893, has been proved at Birmingham by Mr. Joseph Douglass, the son and sole executor, by whom the value of the personal estate and effects was sworn at 2181. 1s. 7d. The testator bequeaths to his wife, Emily, for life the rents and profits from his six messuages in Canterbury Street, and four messuages and premises in King William Street, with remainder to his son Joseph and his heirs absolutely. He also leaves his widow the use of his plate, linen, furniture, and household effects, which, upon her death, are likewise to become the property of his said son.



Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable even for manufacturing purposes.

It should also be recollected that for many articles the range of quality 13 very wide.

42 CANNON STREET, E.C., March 15.

IN the drug-trade business has been rather disappointing this week, and in chemicals also very little is moving. To-day's drug-sales, although very lengthy, showed but little animation, the bulk of the goods being bought in at more or less nominal prices. The chief alterations during the week are as follows: - Cod-liver oil is again much dearer, and it looks as if for some time the tendency will be towards afurther advance; castor oil was slightly easier at to-day's sales; Siam benzoin sold at full prices for fine quality, which is scarce, and the better grades of Sumatra gum also are firmly held; gamboge is from 5s. to 10s. lower, and nux vomica is also about 1s. cheaper. The position of beeswax shows some tendency to easier rates, and a slight drop occurred in Jamaica variety at the auctions. Rhubarb is slow of sale, and common grades must be called lower. For vanilla there is a very strong competition at advanced prices. The camphor market is unsettled; sales are said to have been made privately at lower rates, and to arrive we hear of low quotations; but at auction to-day a. parcel of Japan gum was to all appearances sold at an improvement in price. Zanzibar aloes is tending downwards, and Cape aloes is also about 6d. lower. Ergot of rye fairly steady; but in jalap there has been a fall in price; while chiretta is also 1d. per lb. lower. Tinnively senna sold with good competition at higher rates; ordinary qualities of honey are selling cheaply; cascarilla is in demand at an improved price; cardamoms are in good request, especially for small kinds, which brought rather better prices; gum elemi and gum myrrh are tending slightly easier; and in orris-root there was a considerable decline, owing to forced sa'es. Ipecacuanha is firmly held by the owners, but the demand has fallen off somewhat; and in asafcetida there is no market at all at present, the article being apparently unsaleable, owing to heavy arrivals In chemicals the changes are few. Quinine is slightly easier; there is more demand for tartaric acid; cream of tartar is higher; sulphate of ammonia and nitrate of soda firm and tending dearer, while chlorate of potash is dull. Silver has fallen to 271d, per oz-The Bank rate remains at 2 per cent.

The Next Drug-Sales.

There are to be no drug-sales for four weeks. That was the decision arrived at, nem. con., at to-day's auctions. The next auctions will be held on April 12.

Drugs in Liverpool.

Our correspondent in Liverpool writes, under date of March 14:—Buyers of Gum acacia continue to neglect. Soudan sorts and all other qualities, the business passing being fragmentary, but prices on the whole are very steadily maintained. The recent advance in Calabar beans has not been fully maintained, and sellers have again been found at 2d. per lb. The new crop of African ginger is now offering freely, and of 25 to 30 tons only a few lots were sold, at $32\frac{5}{2}$. to 34s. 6d. per cwt. Castor oil continues flat at $2\frac{1}{4}d$. to $2\frac{5}{10}d$. per lb. for good seconds Calcutta. Nine sacks of Chilian Becswax just in sold from the quay at 7l. 10s. to 7l. 11s. 3d., and of Gambia beeswax about 30 ballots have

sold freely at 7l. to 7l. 1s. 3d. per cwt. Canary seed, after declining to 37s. 6d., at which sales were made, the article has recovered to 38s. 6d. per quarter. Fifty robbins good green Cannabis indica just in, per Eden Hall, offered at auction, and 3d. per lb. was bid for part, but holders ask more money.

The New York Drug-market.

Writing under date of February 28, our New York corre spondent observes: — "The general condition of trade throughout the country is favourable, compared with the latter portion of last year. The continued advances in Opium and its Alkaloids gave a feeling of buoyancy to the market; purchasers are covering their wants for the immediate future. Balsam eopaiba is jobbing fairly well at 35c. to 36c. for Central American, and 38c. to 40c. for Pará. Canadian balsam of fir is very quiet, but continues firmly held at \$3.75. Balsam Peru has developed a strong tone, said to be based on bigber prices in Europe; the jobbing quotation is \$1.50 to \$1.75, as to quality. Nitrate of soda is in a strong position, as the stocks are comparatively light on the spot. Sales have been made, aggregating some 7,500 bags, and spot holders have advanced their price to \$2. Near-by arrivals are quoted at \$1.95 to \$2, and shipments at \$1.80 to \$1.85. There have been some considerable transactions in HGH Peppermint oil during the past week, and the indications are for a very strong market. The boldings of HGH have been very closely concentrated, and, with the advent of any important demand, an advance will quite likely follow. The price now named is \$2.80 to \$2.85. Some Michigan oil has been offered at \$2.30, though the general quotation is \$240. So far no transactions have been reported. Senega-root bas been sold for export at 39c., the sale being about $\frac{1}{2}$ ton of Minncsota root. No further inquiries are reported, and the market is consequently dull. Mexican sarsaparilla, in first hands, is quoted at 9c., but no takers are reported at that. In a jobbing way, $9\frac{1}{2}$ c. is

Hamburg v. Amsterdam as a Cinchona-market.

The Hamburg merchants are a very energetic community, but occasionally their zeal outruns their discretion, and they expose themselves to an unpleasant snub, such as is administered in this week's Indische Mercuur to a Hamburg wholesale drug-bouse by an Amsterdam cinchona-broker. The Hamburg firm, it appears, have been circularising the Java planters, pointing out to them the advantages which, they alleged, Hamburg possesses over Amsterdam as a port to which to consign the Java cinchona-bark. The chief buyers of the article, the Hamburgers say, are in formany, and Hamburg already possesses an old-established. Germany, and Hamburg already possesses an old-established reputation as a bark-market, inasmuch as South American barks bave been consigned there for years. The Amsterdam broker, in his rejoinder, shows that as a central market for buyers from Germany, France, the United States, and England, Amsterdam is very much better situated than Hamburg, that the carriage of goods from the Dutch ports by canal and river is very much below the cost of transport from Hamburg to the factories, that bills upon Holland are far more advantageously negotiable in Java than paper on Hamburg would be, and that the freight-rate from Java to Holland is lower. He then carries the war into the enemy's camp by quoting a letter from a German quinine-manufacturer, who writes "that he would much prefer Amsterdam to Hamburg as a bark-market, especially because cinchona is much better sampled and warehoused in Amsterdam than has ever been the case in Hamburg, and because buyers in the Dutch market are certain to receive exactly what they are shown—a guarantee which is altogether wanting in the case of Hamburg." The Amsterdam broker concludes by observing that it speaks very little for the capacity of the Hamburg cinchona dealers that they propose to call in the aid of an experienced London broker to do their sag pling; that, so far as South American bark is concernci, the owners in Humburg always re-ship their consignments to London because they sell to better advantage there; and that South American bills are negotiable in London at quite 2 per cent. above the Hamburg parity.

ACID (FARTARIC).—The demand has somewhat improved, although the quitations show no change, *English* being $10\frac{3}{4}d$, to 11d., for sign from $10\frac{1}{2}d$, to $10\frac{5}{3}d$. per lb.

ALOES.—Three cases Zanzibar aloes in skins, red and hepatic mixed, containing a good deal of dirt and rubbish, partly soft, sold very cheaply, without reserve, at 55s. to 57s. 6d. per cwt., which was fully 10s. below the recent value. Of another parcel of good brown Socotrine aloes of good flavour 10 casks sold, at 72s. 6d. per cwt. Cape aloes is about 6d. per cwt. lower again; 50 cases sold to-day, at 20s. 6d. to 21s. per cwt. for fine bard bright; 19s. to 20s. for goods slightly drossy; and 17s. per cwt. for ordinary dull. Ten gourds of Curação aloes, bright brown liver, realised 50s. per cwt. to-day. Another parcel of 36 gourds, officed "without reserve," very low overbeated quality, sold at 8s. 6d. to 14s. per cwt.

AMBERGRIS.—There is very little demand at present, although nominally the prices asked are still high. Two tins were bought in to-day at 120s. per oz. for dark grey pieces of good aroma. Another parcel of 10 ozs. was bought in at 55s. for ordinary and 80s. per oz. for fair quality.

ANISE remains firm, with a good enquiry. Fair Russian seed is offering at 28s. per cwt., and for Italian, 32s. to 33s. per cwt. is the quotation.

ANNATTO.—There is very little demand for this article at present: all the lots shown were bought in, good bright quality seed from Madras being beld at $4\frac{1}{2}d$. per lb.

ANTIMONY.—The price of crude Japanese is 19s. per cwt.

ARAROBA.—A small parcel of 4 $\frac{1}{2}$ -cwt. cases was shown to-day, of fair grey quality, for which 1s. 9d. per lb. is solicited.

ARECA.—A parcel of 30 bags of medium quality sold to-day, without reserve, at 13s. 6d. per cwt. This is a good price, and may be called fully 1s. above the previous market value, as better quality than this had recently sold privately at 12s. 6d. per cwt.

ASAFŒTIDA,—There were heavy supplies to-day, consisting of 327 cases from the Persian Gulf, ranging in quality from common to very fine. Some of the holders would bave been quite willing to meet the market, but there was not the least demand, and the entire supply had to be bought in.

BALSAM (COPAIBA).—Four casks were bought in at 1s. 7d. per lb. for fair, slightly cloudy Maranham.

BALSAM (PERU) is very scarce, and high prices are now quoted. At to-day's auctions a 4-case parcel was bought in at $7s.\ 3d.$ per lb. Another lot catalogued was reported as "sold before the auctions."

BENZOIN.—A rather large quantity of Siam benzoin was shown to-day, and of 36 cases 11 sold at good prices; medium to bold pale almonds, partly loose partly in block, all rather dull colour, but otherwise of fine appearance, realised from 181. 15s. to 191. 10s. This description has been exceedingly scarce lately. For small pea and bean size almonds, mostly in block, 71. 10s. to 71. 15s. was paid, and for dull siftings and small almonds, partly loose and partly blocky, 47s. per cwt. A large parcel of small almonds and siftings in block, of fine bright colour and good odour, was bought in at 10l. per cwt. Sumatra gum is in fairly good supply, a new parcel of Java gum baving lately arrived from Amsterdam, and been placed in sale to-day; the total quantity offered numbered about 250 cases, of which, however, only about one-tenth part sold at 81. 10s. to 81. 12s. 6d. for fine pale good almondy very slightly false packed. Penang gum in fair supply, but no sales were effected, and Palembang variety was wanting at to-day's sales. A parcel of 11 cases common third Sumatra, showing very fcw almonds, but a large proportion of false-packed borders, sold without reserve, at from 67s. 6d. to 70s. per cwt., which was very cheap. For a small lot of fair thirds, rather false-packed, 87s. 6d. per cwt. was paid.

BORAN.—At auction to-day 108 bags of borax from the Persian Gulf were offered for sale; the quality was very fair, the drug being said to test as much as 965 per cent. of crystallised borax. Part of it was damaged on the route. It was bought in.

BUCHU.—Neglected. Of about 50 bales offered to-day, 14 sold, at $3\frac{1}{2}d$, per 1b. for rather pale green round leaves, slightly stalky. For another lot, of finer quality, $4\frac{1}{2}d$, is said to be the price, a bid of 3d, being rejected.

CALUMBA.—There is searcely any demand, and only very low prices are obtainable, these were all rejected to-day.

CAMPHOR (CRUDE).—At auction to-day 101 cases of raw China camphor offered without reserve, were apparently sold at 88s. per cwt., which would seem to indicate a sudden rise of about 7s. per cwt. At the end of last week a sale of 100 piculs Japan; camphor, March-April shipment, was reported at 95s., c.i.f. terms, but afterwards higher prices were again asked.

CANARY-SEED.—Prices have given way somewhat. Fair quality *Turkish* seed is now quoted at 44s., *Moroccan* at 47s., and *Spanish* at 66s. per 464 lbs.

CANNABIS INDICA.—Nearly 200 robbins were shown to-day, but there is very little demand at present; good greenish tops were bought in at 6d. per 1b., and ordinary brown dust sold at $1\frac{1}{2}d$.

CARAWAY.—At yesterday's spice auctions 300 bags fair small Dutch seed sold without reserve at 27s. 6d. to 28s. per cwt.

CARDAMOMS.—In rather large supply, 317 packages being shown to-day. There was a very good and general demand, however, especially for small varieties, which were rather dearer, while the better grades showed, if anything, a lower tendency. The following prices were paid for the 126 packages sold:—Ceylon-Mysore—bold pale plump, 3s. 1d.; medium size, 2s. 6d. to 2s. 10d.; small size, 2s. to 2s. 3d.; small long, 1s. 8d. to 1s. 9d. per lb.; medium-sized yellow, 1s. 9d. to 1s. 11d.; medium round plump and pale, 2s. 2d.; rather grey ditto, 1s. 8d. to 1s. 9d.; small to medium brownish, 1s. 6d. to 1s. 7d.; partly split brown and specky mixed, 1s. 5d. to 1s. 6d.; common neglected and lean, 1s. per lb. Ceylon-Malabar—medium-size palish fair, 1s. 10d. to 1s. 11d.; smaller size, 1s. 8d. to 1s. 7d.; medium brown and split, 1s. 6d. per lb. Seed realised from 1s. for common to 1s. 7d. for good. Of Wild Ceylon cardamoms a few packages sold at 2s. 2d. to 2s. 4d. for good bold, and 1s. 2d. for small and lean.

CASCARA SAGRADA.—The only lot with which the market could be tested to-day, one of 63 cases of good bright thin bark, remained unsold; the owner bought it in at 30s., but declared his readiness to take less.

CASCABILLA remains in demand, and must again be marked higher to the extent of 2s. 6d. Of 23 bales offered to-day 8 sold at 35s. for good small brownish and silvery mixed twigs, while pale dust and siftings mixed with small pieces was bought in at 30s. per cwt.

CASSIA FISTULA.—For 6 baskets of rather lean but good sound pods from Java 35s. per cwt. was paid to-day. This, said the broker, was the last parcel of the kind immediately available

CASTOREUM.—Several second-hand lots were offered at auction to-day, the total amounting to about 62 lbs. from Oregon (Alaska), of which 4 lbs. realised 95s. per lb., while for seconds bids of 80s. were refused; 45 lbs. of Hudson's Bay castoreum of fair quality were bought in, at 115s. per lb.

CHIRETTA.—The supply of this drug has long been out of proportion to the demand, and to-day a drop of fully 1d. per lb. was established, 14 bales of rather woody quality from Calcutta selling at 3d. per lb. Other parcels were bought in at from 4d. to 5d. per lb.

CINCHONA.—The shipments of cinchona from Java during the month of February have been middling, the total announced by telegram being only about 500,000 lbs. The imports of bark into London have also been very small this year. We understand that next Tuesday's London cinchonasales will again include 251 bales of old Cuprea bark. They are offered by order of a holder who has made up his mind to sell at current values, and gradually to liquidate his stock of about 2,000 packages. Among the South American barks offered to-day were 5 serons of genuine Lova, which sold at from 1s. 9d. to 1s. 10d. per lb. for good bright partly brown mixed quill. About 50 serons Huanoco realised from 7d. to 1s. per lb. for sound fairly bright quill, and from 10d. down to 2d. per lb. for small to good bright damaged bark. Of South American red bark, about 400 lbs. was shown; small thin quill was bought in at 1s. 6d. per lb., and bolder split quill of fairly good colour at 10s. per lb.

CIVET remains exceedingly scarce, 3 horns of good quality, shown at the auctions, are held for 20s. per oz.

COCA.—Fine medium to bold brownish Huanoco leaves from Ceylon are held for $1s.\ 6d.$ per lb., and for good bright but rather broken South American Truxillo leaves 11d. per lb. is asked; the only parcel sold to-day consisted of 12 50-lb. cases of dark and damaged Huanoco leaves, which realised only 3d. to $3\frac{1}{2}d.$ per lb.

Cocculus Indicus is still tending lower. At to-day's auctions 5s. 6d. would have been accepted for a 100-bag lot from Calicut, but buyers would not go beyond 5s., which was refused.

COLOCYNTH.—Of *Turkey* apple 4 casks pale partly broken and seedy, sold at 11d. per lb., and 1 case very seedy and broken *Spanish* realised only 6d. per lb.

CONDURANGO.—A parcel of 23 1-cwt. bales, all damaged, otherwise of fair quality, was bought in to-day at 6d. per lb.; 4d. would be taken for it.

CREAM OF TARTAR.—A misprint occurred in our quotation for French white cream of tartar crystals in London last week, which should have been 67s. per cwt. That price is still quoted to-day, while for powder 69s. per cwt. is asked.

CUBEBS.—Neglected. The only lots, which were sold, out of 152 packages offered to-day, consisted of 29 bags of cubeb-stalks, which changed hands cheaply at 5s. per cwt., and 9 bags of dust, for which 4s. 6d. per cwt. was accepted. Good bluish and brown berries, slightly mixed with stalk, are held at from 50s. to 57s. 6d. per cwt.

CUMIN-SEED.—Dull and neglected. Good to fine bright Maltese may be had at 36s. to 37s., and Italian at 34s. per cwt. Moroccan cumin-seed, however, offers at 28s. per cwt.

Cuscus.—25s. per cwt. is the price asked for 156 bundles of fairly good quality from Bombay.

DRAGON'S-BLOOD.—Of a recently-imported parcel of 29 cases from Singapore, showing fair soft seedy cakes of bright colour, 6 sold at 7l. 15s. per cwt., and 3 (ordinary quality) brought 5l. 15s. per cwt. A case of fair hard Singapore cakes of good colour sold at 8l. per cwt.

ERGOT OF RYE.—The market keeps fairly steady at the low prices now ruling. Of 66 bags offered to-day 15 sold at $11\frac{1}{2}d$. to 12d. per lb. for good *Spanish*.

EUPHORBIA PILULIFERA.—It is many months ago since this drug has been sold at the auctions. To-day a parcel of 2 bales *East Indian* of fair quality sold, "subject to approval," at 5d. per lb.

FENUGREEK.—A parcel of 99 bags fair East Indian fenugreek sold to-day at 7s. per lb.

GAMBOGE.—Fine quality is again about 5s. per cwt. lower, while pickings show a decline of 10s. per cwt. Of 39 cases offered to-day 9 sold at 11l. 7s. 6d. to 11l. 10s. per cwt. for fine picked pipe, partly cakey, of good bright fracture, and at 9l. 15s. for good pickings, partly dull and ricey in fracture. Small pieces of good bright colour are held for 10l. 10s. per cwt.

GENTIAN.—Fairly steady. Nine bales, fair bright quality, from France, shown to-day, were bought in at 16s. 6d. per cwt.

GINGER.—Cochin root has been advancing lately, rough washed having sold privately, a few days ago, at 43s. per cwt., while to-day 50s. was paid for it. At auction on Wednesday rough Cochin showed an advance of from 7s. to 8s., 571 bags being mostly sold at 40s. 6d. for cuttings and 47s. to 48s. per cwt. for ordinary small washed rough. Of new crop 16 cases good bold, rather rough, sold at 74s. per cwt. Jamaica ginger sold well, at 64s. for common Rhatoon, and 66s. to 69s. per cwt. for ordinary to medium dull. A parcel of 125 bags fair rough limed Japan realised 33s. 6d. to 34s., and a small lot of common African at 39s. per cwt. The new Jamaiea crop is now arriving.

GUAIACUM.—A 10-ease parcel of this drug was partly sold at high prices, good bright block realising 2s. 6d.; fair ditto, 2s. 1d.; small to medium sized loose drop, mostly drossy, $11\frac{1}{2}d$. per lb. For very common stony block a bid of 4d. per lb. was refused.

Gum Ammoniacum.—Several lots were shown to-day—fine small to bold loose almonds, partly blocky, of good colour, being bought in at 75s. per cwt. nominally, but there were no bids at 50s.; 10 cases sold at 42s. 6d. to 44s. 6d. for partly stalky, partly loose medium to bold drop, rather dirty, seedy, and woody, and at 34s. for dark ditto, partly mixed with asafcetida.

GUM ELEMI.—Slightly easier. A parcel of 23 cases good palish gum of fair flavour sold at 38s. to 40s. per cwt.; darker quality realising 32s. per cwt.

GUM MASTICH.—Three cases yellowish drop sold to-day, at 1s. 10d. per lb., which marks a decline in value.

GUM SANDARAC.—Twelve casks rather dull quality from Mogadore sold witbout reserve at the low price of from 43s. to 46s. per cwt.

Honey.—All varieties are in good supply, and it is difficult to effect sales, except at easier prices. The bulk of the honey at to day's auctions was bought in, but some lots sold at low rates. Thirty cases rather dark brown candied New Zealand honey went at 26s.; 8 barrels dull Jamaican (without reserve) at 21s. 6d. to 23s. 6d.; 8 tierces brown candied Cuban at 20s; and 20 cases (each of two 53-lb. tins) thick greyish Australian at 24s. per cwt. Parcels of Californian and Chitian honey were bought in.

IFECACUANHA.—The market showed itself extremely flat to-day, and it was not easy to effect sales, especially as holders were not willing to accept reduced figures. Hence only 5 out of 78 bales Brazilian root sold, at 7s. to 7s. 1d. per lb. for good brown native-picked plump root; fairly good annulated sound root brought 5s. 11d.; wiry and woody from 5s. 6d. down to 5s.; and damaged root from 5s. 4d. down to 5s. 2d. per lb. Of 28 bags Colombian ipecacuanha, 2 sold, at 3s. 8d. to 3s 10d. per lb. for ordinary damaged root.

JABORANDI.—Six bales of genuine but small partly brown and exceedingly stalky leaves were bought in to-day; a bid of 3d. was rejected for them; probably a good deal more than half of the parcel, by weight, consists of stalk.

JALAP.—Fine quality remains firmly held and is not obtainable below 1s. 4d. or 1s, 5d. per lb.; for a parcel of good fine medium to bold Vera Cruz root in to day's auctions as much as 1s. 6d was asked; another lot, however, of 10 bales was knocked down at a decline of 2d. per lb.; it realised 1s. 2d. for fair quality partly somewhat lean mixed.

KINO.—Good genuine East Indian quality remains very scarce, and would probably bring about 20*l*. per cwt. At auction to-day two 1-cwt. cases of a substance catalogued as "kino," imported from Antwerp, were offered. The drug was without the characteristic taste of the true kino, and appeared to be coloured with an aniline dye. When the broker offering it was challenged about its purity, he replied that he would take no guarantee, but sold it "for what it might be." He then suggested, amidst laughter, bids of 18*l*. or 15*l*. per cwt., and finally withdrew the parcel.

Kousso.—Fine quality in bundles is not offering, though it would certainly bring high prices if shown. Two bales common loose flowers from Alexandria were again shown, and bought in at 8d. per 1b.

LIME JUICE.—The demand is very slight; fair quality, containing the usual proportion of suspended vegetable matter, was bought in at 1s. 4d. per gallon.

MUSK.—The market has been so unsatisfactory lately that the importers appear to have decided to hold off for the present. A very small supply only was therefore offered at to-day's auctions, and of this not even one single tin was sold. *Tonquin* pods of the first pile, small to bold, thin blue skin, partly heavy underskin, somewhat damp, well trimmed, were bought in at 65s. per oz.; third pile pods, old-fashioned, with top and underskin, badly trimmed, at 24s. per oz., and ditto, damp, at 21s. per oz.

MYRRH.—Very slow of sale. For 13 bales dusty sorts 80s. per cwt. was paid, and for 3 packages of dark and cindery gum 66s. per cwt. was accepted.

NUX VOMICA.—A good many parcels were offered to day and a fair proportion of this supply (375 out of 830 bags) sold at a decline of about 1s per cwt.:—Small to medium

good pale silky seed from Coconada, at 8ϵ to 8ϵ 3d. (one lot at 8ϵ 6d.) per cwt.; small dull grey seed from Madras, at 7ϵ to 7ϵ 3d. per cwt. Fine quality was bought in at 12ϵ per cwt.

OIL (CASTOR).—A parcel of 100 cases good pale "No.1" oil from *Calcutta* sold to-day, "without reserve," at $2\frac{3}{4}d$. per lb., which is a decline of about $\frac{1}{8}d$. per lb. For 25 barrels *Italian* oil of fair quality a bid of $2\frac{1}{4}d$. per lb. was refused.

OIL (COD-LIVER).—The advance has made further progress this week, and we understand that as much as 85s. has been paid for old oil of good quality and 105s. for good new noncongealing; at present, however, 115s. is asked for the latter quality and some holders even speak of 120s., declaring that the quotation of 150s. is only the question of a few days. At auction to-day 60 casks were shown and nominally withdrawn, although we believe that they have actually been disposed of. The advance is, no doubt, to a very large extent, due to the unfavourable reports of the fishing. Up to March 9, 4,400 hectolitres of medicinal oil had been prepared at Lofoden, against 8,500 during the corresponding period of 1893; there is, however, also a good deal of speculation in the article. A German firm began to sell at low prices (somewhere about 62s. 6d. per barrel) at the opening of the season and have since apparently oversold themselves. They are now trying to cover their sales wherever they can, and this has had the effect of sending up the prices day by day.

OILS (ESSENTIAL).— Cajuput oil: Ten 24-bottle cases were bought in at 2s. 9d. per bottle to-day. For geranium oil from Bombay, which is offering freely, a bid of 5d. per oz. was refused, owners standing out for 7d. per oz. for good quality. Two cases white nutmeg oil, imported viâ the States, sold "without reserve" at 3d. per oz. This price was refused for another parcel of 4 cases from Singapore. American oil of peppermint is rather lower, HGH offers freely to-day at 12s. per lb. Of Japanese oil, several lots were shown at the auctions and bought in, oil with 40 per cent. of menthol at 11s. 3d., dementholised oil at 9s. 9d. per lb. A case of alleged "peppermint oil" sold without reserve at 3s. 2d. per lb. For a parcel of 10 cases star-anise oil a bid of 5s. 8d. per lb. was rejected as being 1d. below the figure at which the owner was prepared to sell. Another parcel was bought in at 5s. 10d. per lb. Of Platypus Eucalyptus oil a 7-case lot was shown, for which the holder requires 2s. 6d. per lb. Eighteen flasks Rosewater and 17 flasks Orange-flower water from Cartagena were offered *without reserve* "at per pound." The quality was apparently good. Bidding for the rosewater started at 2d. per lb., and rose to 4d. per lb., at which the lot was knocked down. The orange-flower water also sold at 4d. per lb., not a very encouraging price for the producer. An English firm of essential-oil distillers call attention to the quotations of Italian essential oils in our last issue, observing that "until lately no Sicilian oils were shipped to this country without at least 20 per cent. of adulterant," and that the oils quoted by us cannot be pure at the price. Without entering into this question of purity, we may say that the descriptions of the oils given in our report were those of the correspondents who supplied the quotations, not our own. This is sufficiently indicated by tne fact that the descriptive qualifications are printed in quotation marks. Our English friends give the following prices for "perfectly pure" oils:—Lemon, 4s. 6d. to 5s.; Sweet orange, 4s. 9d. to 5s. 3d.; Bitter orange, 12s. to 16s.; Mandarin, 37s. to 40s. per lb. Oil of Lorage has advanced in sympathy with the scarcity of the root, as much as 60s. being now asked for it. Oil of *Thyme* is also marked higher by most dealers; Red thyme ranging from 2s. to 3s. 8d. for "fair commercial" to "pure," and from 1s. 3d. to 1s. 8d. per lb. for second quality; while white thyme, according to quality, varies from 2s. 4d. to 4s. 3d. per lb. On the other hand. hand, French Marjoram oil, French oil of Lavender (wild), and oil of Rosemary are quoted somewhat lower.

OPIUM.—In London very little business has been done since last week. Small sales of single-case lots of good *Druggists*' opium are reported at 11s. 6d. to 12s. 6d. per lb., but upon the whole buyers show no desire to operate at present. The asking price for good *Persian* opium on the spot is 11s. 6d. to 12s. per lb., and there are again sellers for forward delivery at high prices, but no buyers. These are our reports from Smyrna, dated March 3:—"The sales from

February 24 to March 2 amounted to 432 cases current tale quale and 29 cases Yerli tale quale, the whole (excepting from 15 to 20 cases) for the United States. The American buyers in the course of the week forced a drop of 6d. per lb., but the market closes firm again with an upward tendency. The arrivals from the interior, from the beginning of the 1893 season to March 3, were 1,271 cases, against 3,969 cases in the corresponding period of 1892–93." Another correspondent writes:—"The best proof of the truth of my previous statement that there has been no damage done to the growing crop thus far is that, when the American agents here received orders to buy up all the opium offering, provided that it could be had at a reduction in price, our holders at once hastened to comply with that condition, the result being the heavy sales of the current week. The market closes firmly."

ORANGE PEEL remains neglected, and at to-day's auctions nothing was sold. Fair to fine bright Malta strips are quoted at from 6d. to 11d. per lb.

ORRIS.—The market has been somewhat disturbed by the announcement that 30 2-cwt. bags from Leghorn were to be sold "without reserve." The quality showed the root to consist of fair pale and yellow mixed Florentine sorts; and the first bid was 55s. per cwt. From that point it quickly advanced to 70s. per cwt, at which the first lot was knocked down. The remaining lots realised 69s. down to 67s. per cwt., an average decline on the previous nominal price of from 10s. to 13s. per cwt. Five bags good pale Florentine root, from Leghorn, sold at 70s. per cwt. Another lot, however, of 3 bags, was bought in at 80s.

PEROXIDE OF HYDROGEN has again been reduced in price by some of the manufacturers. The average quotation is now 1s. 9d. per gallon for 10-vol., 2s. 3d. for 12-vol., and 4s. for 20-vol.

QUICKSILVER.—The importers still quote 5l. 12s. 6d. per bottle as their price, and from second-hand holders the metal may be had about 1s. a bottle below that figure. Mercury is lower in price now than it has been since June, 1885, when the official quotation marked 5l. 5s. a bottle.

QUINCE-SEED.—One bag from Cape Colony, fair quality, sold at $11\frac{1}{3}d$. per lb.

QUININE.—A small sale of 5,000 oz. secondhand German bulk at $11\frac{5}{8}d$. per oz. was reported in the early part of the week.

RHUBARB.—The supply at to-day's auction consisted of 194 cases, 64 of which sold at irregular rates, common high-dried being rather easier, while Shensi brought steady prices. The following rates were paid:—Shensi flat medium to bold fair coat half pinky, half dark fracture, 1s. 10d.; small round druggists' root, 1s 9d.; round small to medium three-fourths pinky one-fourth grey and dark fracture, 1s. 7d.; round medium to bold fair coat half-pale half pale pinky half dark fracture, 1s. 5d. to 1s. 6d.; flat small to medium half grey and pinky, half dark fracture 1s. 3d.; small round and flat rather dull, 1s. 2d. per 1b. Canton—flat slightly wormy fair coat fine grey p nky fracture, 1s. per 1b. (subject); round medium to bold mixed fair coat, three-fourths pinky one-fourth grey fracture, 10d. to $11\frac{1}{3}d$.; round medium to bold fair even yellow coat, three-fourths pinky one-fourth brown fracture, 11d. (subject); very small druggists' root, $11\frac{1}{2}d$.; good pickings round and flat, mixed, 10d.; small three-fourths pinky, one-fourth round, $9\frac{1}{2}d$. to $9\frac{3}{4}d$. (subject). High-dried—small fair coat, half pinky, half brown fracture, $10\frac{1}{2}d$.; round rough coat fair fracture, 6d. to $6\frac{1}{4}d$.; small ditto, $5\frac{3}{4}d$. to 6d. per 1b.

SARSAPARILLA.—Fourteen bales genuine *Grey Jamaica* root sold at steady prices to-day—sound 1s. 4d., damaged 1s. 3d. per lb. Of *Honduras* sarsaparilla, 23 scrons were shown and bought in—fair quality is held for 1s. $2\frac{1}{2}d$.

Senna.—For *Tinnevelly* senna the competition was very good and higher prices were paid all round. The supply only consisted of 97 bales, all of which sold at 7d. for bold bright green leaf; 5d. to $5\frac{3}{4}d$. for medium to bold greenish, partly speeky; 2d. to 3d. for small to medium, partly yellow to greenish leaf; and from $1\frac{1}{2}d$. to $1\frac{3}{4}d$. for ordinary.

STAR-ANISE.—One case of very broken but good genuine Chinese sold at 54s. per cwt. to-day.

SUGAR OF MILK.—The present price of best white sacehar. laotis, in crystals or powder, is 50s. per cwt.

TONGA BEANS.—Good frosted Para beans are held for 2s. 6d. per lb.

Vanilla.—The small supply of 55 tins was very strongly competed for and sold at an advance of from 1s. to 1s. 6d. per 1b.; ordinary brown of various lengths, from 5s. 6d. to 9s.; small chocolate, from 3 ins. to $6\frac{1}{2}$ ins., 7s. to 9s.; $5\frac{1}{2}$ to $6\frac{1}{2}$ ditto, 10s. 3d. to 11s.; good crystallised, 6 ins. to 7 ins., from 14s. to 17s. 6d.; fine crystallised, 7 ins. to $8\frac{1}{2}$ ins., from 17s. to 19s. per 1b.

WAX (BEES').—Rather easier all round. Jamaica being about 5s. cheaper; Mauritius scarcely maintained in value; Madras wax, however, sold at high rates. The following prices were paid:—East India, dull pale bleached, 6l. 10s. to 6l. 12s. 6d.; Jamaica, brown and chocolate to good yellow and red mixed, 7l. 10s. to 7l. 17s. 6d.; Australian, fair, mixed colours, 6l. 10s. to 6l. 15s., and Cuba, 7l. 5s. per cwt.

WAX (JAPAN) is firmly held. For 15 cases rather yellowish squares shown to-day, an offer of 34s. was to be submitted.

FROM A PHARMACIST IN THE ORANGE FREE STATE.

ONE of our far-away subscribers sends us the following notes on affairs in his latitude:—

ENGLISH BURNT SUGAR.

Why is there such variation in the quality of "sacch. ust." exported from England? There is a large amount used in South Africa for colouring the cheap spirits sold to the lowest class of Boers and Kaffirs. I have now tried three first-class London export houses, and in each case their "spirit-colouring," vel. "sacch. ust.," has turned out to be "vinegar-colouring." During the time I was at the front in the Zulu War I have often made "sacch. ust." in an ordinary frying-pan, for the purpose of colouring the white Natal rum, a barrel of which—"pizin"—was always kept in commissariat. We found that the troopers liked it better with the colour. To-day I have other fish to fry, and would prefer importing my stuff to the trouble of making it. Surely good houses, who cultivate South African trade, might find it worth while to send out an approved article. A propos of drink, I think the better class of South African Boers are the most temperate people in the world. They dislike "good templary," but pursue moderation.

CIVILISATION ADVANCING.

The Jagersfontein correspondent of the Diamond Field Advertiser (February 2, 1894) writes that, on the occasion of a visit to Jagersfontein paid by a native chief, the latter was interviewed by a reporter of the D. F. A., who presented the Chief of the Batalapin "with a bottle of the celebrated Q. E. D. renovator, a packet of the renowned sweetsmelling petal-dust, and other luxuries." The chief is Lucas Jantje, nephew of the renowned Mankorane. On being asked whether he would take a good cigar, he replied, "Yes," "thereby showing (says the correspondent) more sense than a good many white people I know of." The Q. E. D. is, of course, made from a C. & D. recipe, and has a large sale from Cape Town to Pretoria.

QUACKERY IN THE ORANGE FREE STATE.

The Kimberley Advertiser correspondent (December 14, 1893) writes:—"Some correspondence is going on in the Bloemfontein papers re quacks. Let me tell you a yarn. A quack here bought a trap frem a sporting butcher for fifteen quid—on easy terms—and meanwhile attended the sporting purveyor's family. When the time came the sporting butcher called on the spurious medico, and reminded him of the little account. 'Oh, ah!—yes,' drawled the quack, 'I will make out your contra.' He did so, and handed it over, remarking, 'Sixty-one visits, at 5s. per visit, are 15l. 5s. I'll make you a present of the 5s.' The purveyor fe t sick, and left the house a sadder and wiser man. This is a fact, and happened quite recently."



Memoranda for Correspondents.

In letters for publication correspondents are requested to express their view, as concisely as possible.

Correspondents should write on one side of the paper only, and devote a separate piece of paper to each subject of inquiry.

The name and address of the writer should accompany all communications with, if desired, a distinctive nom-de-plume.

Watching the Register.

SIR,-In your issue of March 10, under the heading of "Personalities," there appears a paragraph to the effect that Mr. Charles Thomas Sellens, chemist and druggist, has been reappointed elective auditor for the Borough of Lydd.

Permit me to point out that Mr. Sellens is not a person

whose name appears on the Register.
Yours faithfully,

RICHARD BREMRIDGE, Registrar.

March 13.

Saffron Standards.

SIR,—Mr. Liverseege's letter in your issue of March 10

calls for some reply from me.

He points out that by fixing the standard of ash percentage on the dried saffron, as I suggested, $\frac{5}{34}$ of the samples examined by me would be rejected, whereas by using the present standard only $\frac{4}{34}$ would fall without the limit of 6.5 per cent, which he considers the official maximum to be. Now, while totally disagreeing with Mr. Liverseege in regarding "about 6 per cent." as a cast-iron standard, meaning not less than 5.5 and not more than 6.5, I must remind him that I stated in my paper that the evidence afforded by the examination of thirty-four samples showed the B.P. standard to be a just one; and since the alteration I snggest differs so slightly, by Mr. Liverseege's own sbowing, from the present arrangement as to reject only one more sample out of the thirty-four, he must, I think, admit that my suggestion, if adopted, would, without in any way altering the standard of ash for normal saffrons, accomplish the purpose intended for it-viz., that of leaving the standard much as before, but making it independent of the quantity of volatile matter present.

In Mr. Liverseege's opinion saffrons containing 6.8, 7.0, and 7.2 per cent. of ash respectively are not "saffron in the legal sense," and he considers that a public analyst is justified in condemning them as not being of the quality required by the Pharmacopœia. Now I am not in the least prepared to admit this; but granting for a moment that it is so, I would ask Mr. Liverseege, not whether a public analyst is justified in stating that such saffrons as the above are not of the quality required by the Pharmacopæia, but whether he (the analyst) is justified in stating that such saffrons are "adulterated with added mineral matter"?

To say that the public analyst is not responsible for the prosecution is a mere quibble. His certificate does not explain tbat the added mineral matter which he has detected is only $\frac{1}{2}$ per cent., and the prosecuting authorities being consesequently nnable to see the absurdity of accusing a man of adding one part of mineral matter to 200 of his saffron in order to swindle the public, are doing no more than their duty in prosecuting the vendor. Let Mr. Liverseege put himself in the position of an honourable trader buying good drugs at good prices, and I think he will see the matter in a somewhat different light.

As I have already stated, I see no good reason for extending the B.P. standard, not even though the Swiss Pharmacopecia makes it $7\frac{1}{2}$ per cent.; but I do most certainly see the necessity for a rational interpretation being put on the present official language; and a standard for moisture would also, I believe, be useful.

With regard to the drying of saffron kept in paper enve-

lopes, I recently placed a sample which, when imported, contained 161 per cent. of moisture in an envelope, and let it lie for three weeks on the bench of my laboratory; at the end of that time it contained 11.7 per cent., having thus lost 29 per cent. of its original moisture, a loss having an effect upon the ash which Mr. Liverseege, to whom fractions per cent. are so significant, could not but regard as important.

JOHN BARCLAY.

17 Bull Street, Birmingham, March 13.

The Position of Chillies.

SIR,—Since you query "at what figure the line of unprofitableness to the collector" will be reached, it is a pity that you did not carry your statistics a few years further back.

Zanzibar chillies fell at the end of 1877 to 18s.-19s. per cwt., and remained at that low level for nearly a year, when a gradual recovery took place.

We can, unfortunately, not tell you what stock there was at that time.

Yours truly,
AUGUST FABER & Co. March 10.

Castoreum.

STR,—I have read with much interest the valuable commercial and historical review of castoreum in your issue of this week. After reading it I looked up a copy in my possession of the sixth edition of the Encyclopædia Britannica, published in 1823, to see what was our grandfathers' view of the therapeutical and commercial value of castor. The information given in that work may be useful as shedding further light upon this subject. It runs as follows: "Castoreum in the Materia Medica, castor; the inguinal glands of the beaver. The ancients had a notion that it was lodged in the testicles, and that the animal when hard pressed would bite them off, and leave them to its pursuers, as if conscious of what they wanted to destroy him for. The best sort of castor is what comes from Russia. So much is Russian castor superior to the American that 2l. 2s. per lb. are paid for the former, and only 8s. 6d. for the latter. The Russian castor is in large hard round cods, which appear, when cut, full of a brittle, red, liver-coloured substance, interspersed with membranes and fibres exquisitely interwoven. An inferior sort is brought from Dantzic, and is generally fresh and moist. The American castor which is the worst of all, is in longish thin cods. Russian castor has a strong disagreeable smell, and an acrid, bitterish, and nauseous taste. Water extracts the nauseous part with little of the finer bitter; rectified spirit extracts this last without much of the nauseous; proof spirit both; water elevates the whole of its flavour in distillation; rectified spirit brings over nothing. Castor is looked upon as one of the capital nervine and ambihystric medicines. Some celebrated practitioners, nevertheless, have doubted its virtues, and Neumann and Stahl declare it insignificant. Experience however has shown that the virtues of castor are considerable, though less than they have been generally supposed.'

I am, Sir, yours faithfully BEAVER. (182/746.) Regent's Park, March 12.

SIR,—Referring to your interesting article on castor, we may say that we regularly use a small quantity of the tincture, being one of the ingredients in an old-fashioned recipe for gripe-mixture. Fortunately, we have never bought any since we have been in business, as we have only just used up the last of two very fine "pods" which were here when we first came as apprentices—now some twenty years Yours truly,

G. & K. (259/19) Boston, March 12.

SIR,-In the Latin title of "Castorologia," "antidhae" (1) should probably be read "antidbac," dog-latin for "ante-hac," meaning "before," "hitherto," or "in times past."

Yours truly,

Southampton, March 14.

E. S. V. (29/271.)

DISPENSING NOTES.

Correspondents should consult "The Art of Dispensing" in regard to dispensing difficulties. Difficulties not explained therein may be sent to the Editor, who invites a general expression of opinion upon the undermentioned topics.

Emulsion of Cod-liver Oil with Alkali and Ammoniocitrate of Iron.

254/44. Dubious has failed to obtain a presentable mixture with the following prescription, as written: by using 30 grs. of powdered gum acacia he obtained a perfect emulsion:—

Ferri am. cit.			••		 Ðj.
Ol. morrhuæ					 Zij.
Tr. calumb.			••		 Žij.
Aq. calcis ad	• •	••	••	••	 3iss

Ft. emuls.

[Aq. calcis, even when recently prepared and of full strength, does not make a nice emulsifying agent in such preparations as the above. Gum-acaciæ is certainly about the best agent to use if the prescriber will permit the alteration, or if he must have an alkali, the solution of ammonia in suitable proportion would be the one most likely to succeed.

256/11. Novice.—A 1-per-Cent. Solution of Menthol in 1 fl. oz. of chloroform would practically mean 5 grains dissolved in 1 fl. oz. of chloroform.

256/41. G. M. S.—Bismuth-and-Soda Mixtures Bursting the Bottles.—This frequently occurs when bismuth trisnit and soda bicarb occur in any quantity in the same mixture, and is variously attributed to double decomposition or the action of free nitric acid mechanically present in the bismuth acting upon the soda, carbonic-acid gas being given off. Many dispensers prefer to use carbonate of bismuth in such preparations, when there is no risk of bursting. We have not noticed the presence of tinctures in such mixtures modify the effect, either decreasing the tendency to bursting or otherwise.

Cod-liver Oil Emulsion.

255/65. Despair had the following mixture to dispense, and wishes to know if it will form an elegant emulsion, and how to proceed:—

	••	••	 	m xxx.
		•		gr. iiss.
			 	gr. iss.
• •			 	mxx.
			 	3i.
	••	••		

Mitte 3vj.

[This is scarcely an emulsion: it forms rather a tenacious mixture, not inelegant in appearance, if made in this way:—Rub up the oil in a dry mortar with the acacia in powder; place the treacle in another mortar, and gradually incorporate the mixture of oil and gum with thorough stirring; lastly, add gradually the glycerine with which the fer tart has been previously rubbed. When so prepared it is not readily separable.]

LEGAL QUERIES.

Immediate information on pharmaco-legal matters is available in "Pharmacy and Poison Laws of the United Kingdom," Alpe's "Handy-book of Medicine-stamp Duty," and THE CHEMISTS' AND DRUGGISTS' DIARY.

256/26. Kino.—If a registered female chemist changes her name that does not affect her qualification. She should advise the registrar, but she may carry on business under either her married or her maiden name.

254/2. Ferrum.—We do not know of any other limitation of the hours of employment of an apprentice than the Shophours Act, which fixes seventy-four hours a week as the outside limit. Sunday duty being a recognised part of a chemist and druggist's work, it is reasonable that an apprentice should take a moderate share of that duty. But the total of his week's work and meal-times must not exceed seventy-four hours so long as he is under 18.

13/7. Mag. Cit.—We cannot undertake to say how near one may go in adopting titles which other firms have made popular, but which they have not been allowed to register. It is a very difficult question, and in the event of an action one would be judged by a consideration of all the surrounding circumstances.

256/12. Dudley.—If you had followed the cases you would have seen how impossible it is to say at present at what poisonous point a medicinal preparation becomes a "poison" legally. The sale of chlorodyne lozenges not containing morphia would hardly be an offence against the Sale of Food and Drugs Act.

256/26. Dental.—A qualified dental surgeon has no authority as such to sell poisons.

257/56. Lennox.—No licence (unless it may be a local one for the pitch) is required to sell medicines in the street, if the medicines are not liable to medicine-stamp duty, and if they are made by the vendor. If the goods are other people's make, a hawker's or a pedlar's licence may be necessary—not, however, if they are only sold in public fairs or markets. We cannot answer your other questions.

258/13. Cantab.—We quite agree with you as to the unwisdom of the Pharmaceutical Society committing themselves on the subject of sulphocyanide of ammonium, but your letter only repeats what was said in this journal last week. The so-called "sulphocyanide of ammonium" is cyanate, and we presume this is the basis of the Secretary's opinion; but it is not certain that, if the question were raised, and if the poisonous nature of the article were proved, a Court would not interpret the law in favour of the safety of the public adopting the colloquial use of them.

258/33. Halifav.—A licensed medicine-vendor may open a stamped packet of powders and sell out the powders singly without restamping them, if he does not pack them into a new sealed packet.

258/57. J. B.—Can a registered dentist put a plate up and call himself "surgeon-dentist"? Yes.

256/69. Inquirer.—We do not see what liability you could incur by using the stamp you send, unless by chance the design should have been registered, which is not at all likely.

259/38. N. L.—If the articles of association expressly stipulate that there must be a certain number of directors, and a smaller number only are appointed, the proceedings of these directors will be invalid, except as regards contracts which they may make with parties outside who have had no notice of the irregularity. These are enforceable against the company, but the directors take great personal risks, and, no doubt, can be compelled to obey the articles or wind up.

MISCELLANEOUS INQUIRIES.

250/74. A. W. C.—Would an aniline dye suit you for colouring the liquid dentifrice? We cannot say without seeing the formula. We have always used cochineal in such a case.

228/17. Dexter.—The "cream" you send consists of equal parts of lanoline and lard. You might make a nice Toilet-cream by adding a little pulv. zinci oleatis and a trace of ol. rosæ gcranii to hide the faint odour of the fats.

248/17. Paint.—It is scarcely possible to entirely remove the Spots of Paint from the floor paved with white York stone. Have you tried the method of covering with a piece of brown paper, and passing a hot iron (such as a plasteriron) repeatedly over the spots?

242/52. Multicura.—We do not know Startin's Ointment for ringworm and skin-eruptions. Can any of our readers suggest what this is?

273/37. C. B. S.—(1) The Mixture for Diarrhœa consists of tinct. opii and acid. sulph. dil.—say, $m \times 0$ the former with $m \times 0$ the latter in water. It is a very old and effectual remedy, and used to be sold in the concentrated state as "cholera-drops." (2) To dry dandelion-root, which we suppose you are gathering now, as suggested by Bentley, you will want artificial heat, as the sun is not powerful enough at this time of the year. The roots lose 75 per cent. of their weight by drying.

252/39. Bennie.—We suppose you mean the heavy ol. petrolei. You can colour it like ol. viride ver. by using chlorophyll, which we find is soluble in the oil.

249/19. J. H. C.—(1) This is a good formula for Carbolic Tooth-powder with kieselguhr base:—

(2) Quinine Tooth-powder:-

	Quinir	ne						gr. xxx
		boracis	•	••				-
			••	••	••	••	• •	Ziss.
	Tanni	ц.,	• •	• •	• •	• •	• •	3ij.
	Pulv.	iridis		••	• •			3iv.
	22	oss. sepi	.88	• •			••	3iv.
	"	sacehari			• •			3j.
	Oreta :	præeip.						3 viij.
	Otto r	osæ						mxv.
	Ol. pir	nent.	• •				'	mx.
	" cas	siæ		••				mxij.
S.A								

249/24. Mizpah.—(1) The only thing we can suggest "to make glycerine dry" is litharge, but as we have no idea what you want to use it for our suggestion is limited. (2) Methylated spirit is nearly always acid; this is doubtless the cause of it acting on your iron drums, and may also account for the precipitate of sandarac.

231/57. Rex.—Lozenge-making is an art only learnt after a lot of practice; however, you might try your hand at it. The B.P. will give you some idea of how to go to work. A cheap base is made of—

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Pulv. sacchari .. .. .. .. .. .. 7 lbs.
Muc. acaciæ .. .. .. .. .. 1 lb.
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This would do very well for your aperient lozenge when medicated suitably. The tasteless extract of cascara sagrada makes a nice lozenge with black-currant pasts, which any maker will let you have. You can get the cutters for cutting out the lozenges from Maw's. There is a useful article on the subject in Remington's "Practice of Pharmacy."

233/73. Anthrax.—The powder for use with sand in brass casting seems to be a very impure form of dextrine. Have you an opportunity of getting this tried practically?

250/34. Black.—See 1894 DIARY, page 372, for Niggerblack. Another way is to smear the face with cold-cream, and apply burnt cork, the object of the grease being to protect the face and enable the black to be easily wiped off.

243/21. Sunflower.—Sunflower-oil strictly belongs to the class of medium-drying oils, as it contains the glycerides of the acids related to linoleic acid. It is, however, no more drying than cotton-seed oil, and is certainly worth a practical trial as a hair-oil.

244/48. Balsam.—Balsam of Horehound and Aniseed to suit your label:—

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Horehound (chopped small) .. .. 4 oz.
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Infuse in 1 pint of boiling water for an honr, strain, and dissolve in the resulting infusion—

If you do not mind the presence of a statutory poison you might use tinct. opii, 2 oz, instead of the tinct. hyoscyami, but then it would not be so suitable for children.

245/70. J. Flemons.—Ferrogallic Process for producing photographic copies in black on white ground:—

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      Gelatine
      ...
      ...
      ...
      3 draehms

      Liq. ferri perch. fort.
      ...
      ...
      6
      ,,

      Ac. tartaric.
      ...
      ...
      3
      ,,

      Ferrie sulphate
      ...
      ...
      3
      ,,

      Water
      ...
      ...
      9 oz.
```

Filter and apply to surface of suitable paper, and let it dry. After exposure to light under the drawing immerse in a solution of—

(2) Blue lines on white ground:—Coat paper with this solution, and dry:—

After exposing under drawing develop with saturated solution of ferrocyanide of potassinm, Fix in 1-in-20 solution of hydrochloric acid.

(3) White lines on blue ground:—

```
(A.)

Ammonio-citrate of iron . . . 9 draehms

Water . . . . . . . 8 oz.

(B.)

Potash ferrideyanide . . . . 10 draehms

Water . . . . . . 8 oz.
```

Mix equal parts before use, and brush on suitable paper, and dry.

253/37. Subscriber. — "Practical Electricity" (Spon), 3s. 6d.; and Noad's "Students' Text-book of Electricity," 12s. 6d., and Noad's "Manual of Electricity," 24s. (Crosby, Lockwood & Co.)

199/27. Subscriber and (256/54) Orgetorix.—Some letters were published in this journal some years since about the show-bottles in chemists' windows, but no definite information was obtained as to the origin of these. It was assumed that they were merely intended as advertisements of the drugs and chemicals sold.

253/31. Cera A'ba.—Your sample of Vegetable Wax is carnauba wax, obtained from the leaves of a palm growing in Brazil (Coripha cerifera). It is a very good specimen, and a ton of it would probably realise a high price in the market just now, as it is scarce.

254/47. Phenol.—Bookbinder's Varnish for Leather.—Either a spirit or an oil varnish may be used to give a gloss. Shellac alone dissolved in spirit or vegetable naphtha is too brittle for the purpose.

Spirit-varnish.

Amber rosin	 	 	3 lbs.
Seed lae	 	 	12 oz.
Methylated spirit	 	 	2 galls.
Dissolve.			

Clarify with freshly-slaked lime or kaolin if necessary.

Oil-varnish.

Canada balsam			 	1 part
Oil of turpentiue	١	• •	 	2 parts

If too thick add more turps, or

Sandarae		• •		• •	 4 oz.
Seed lac					 4 oz.
Strasburg	or Ver	iiee tu	rpeuti	ne	 2 oz.
Oil of turp	pentin	е			 2 pints
Dissolve and d	ecant.				

Indigo-paste is generally obtained by digesting powdered indigo for a few weeks in the strongest sulphuric acid obtainable; it consists chiefly of sulphindigotic acid. See also "Soluble Blue," page 32, July 1, 1894.

256/47. Indigo.—Bichromate of Potash as a Quantitative Test for Indigo.—Take 1 gramme of finely-powdered indigo and digest for some hours in 10 grammes fuming sulphuric acid, shaking from time to time. Put this into a basin containing about 1 kilogramme of water, add 50 grammes strong hydrochloric acid, and titrate with a standard solution of bichromate of potash until the blue colour changes to red-brown. Ten parts pure indigo blue (Fritzsche's) require 7½ parts bichromate. This process and others dependent upon oxidation generally give too high results, due to various causes. Good indigo generally contains from 50 per cent. to 56 per cent blue, whilst by similar processes as high as 80 per cent. has been indicated. For this reason many chemists prefer to use reducing reagents, such as protosulphate of iron, stannous chloride, &c. For further particulars see "Indigo" in the various volumes of "Watt's Dictionary of Chemistry."

247/15. Hants.—(1) The Moustache-fixer is a solution of benzoin and one other resin, which we take to be mastic, in S.V.R., with a trace of glycerine. The perfume is mainly Tonquin bean. Benzoin is present in about the proportion of 1 in 20, the other resin in less quantity. (2) Sap green is common enough to be stocked by most drug-houses. Ask your wholesale house to obtain it for you. (3) Liquid archil is intended to be used in the formula for marking-ink given in the Diary.

231/1. Salacetol.— Hair-dye.— Solution A consists of pyrogallic acid in spirit and water, with the addition of liq. ammoniæ. Solution B we are not so sure about; its purpose seems to be to carry oxygen to the pyrogallic acid. From a cursory examination we were not able to arrive at its composition. The result on the hair you send is certainly very nice. Perhaps the little glycerine present in the second solution prevents the dried appearance. By altering the strength of pyrogallic acid you could do a lot in the way of varying the shades in its particular class, but the other colours are probably produced by a more radical alteration of the formula.

236/18. Bird Fancier.—Powder for Washing Feathers of Birds, which is quite innocuous, consists of powdered soap, the perfume and colour suggesting white Windsor.

242/18. Yellowplush.—Your solution for boilers and hotwater heating-apparatus, "guaranteed not to freeze," is a solution of impure common salt, nearly saturated. If you make a solution 1 in 3 of water, you will have practically the same preparation.

243/37. G. D. (Clapham).—American Boot-polish, like the sample you send, can be made after this formula:—

```
Ext. hæmatoxyli
                                       .. 3j.
Potas, bichrom.
                           :.
                                 ..
  " ferroeyanid. ..
                                 ..
                           . .
P. boracis ...
Liq. ammou. ...
                                            3iss.
                     ..
                           . .
                                 ..
                                        ..
                     • •
                           ..
                                        .. 3j.
G. shellae. ..
                                           3viij.
                    • •
                                  ..
                                        ••
Aqua ..
                                        .. eong. ss.
```

Dissolve the extract and potash salts in water nearly boiling. When the eolour has developed dissolve the borax in the liquid, add the shellae, and, lastly, the ammonia. Stir well, and continue the heat till all smell of ammonia has disappeared, and the shellae dissolved.

234/19. F. P. F.—The polishing-paste for stoves you send is the ordinary blacklead used for stoves, made into a paste with glycerine, and scented with a dash of oil of anise.

247/45. I. A. (Sheffield).—We cannot identify chemically or microscopically the nature of the earth in the American metal-polish. It is, doubtless, one of those natural earths which are found in such prodigal abundance in the States. The paraffin oil has a lot to do with the cleaning properties.

255/47. T. F. E.—Petroleum Pomade, for preventing dandruff, increasing the growth of the hair, &c.:—

	Paraffin	ı. mollis			••	••	• •	Зij.
	,,	dur.	••	••	••	••	••	5iij.
Disso	lve, and stir	until eool	; th	en add	_			
	Liq. epi	spastie.	••					5j.
	Jasmin	e pomade		• •		••	• •	3j.

Should there be any idea of a fungoid parasitic disease being present, which often happens in such cases, then add resorcin 3j., or ungt. hydrarg. ox. rub. 3iv. The addition of a little bismuth. trisnit. or carb. tends to prevent the hair coming almost white, which is sometimes apt to occur when petroleum preparations are used.

242/41. C. D. (Belfast).—(1) The base of the Reliable Marking-ink is the same as Redwood's formula in the DIARY; but, as you say, the temporary colouring-matter is different: it appears to be of the nature of indigo-carmine. The thickening-principle is certainly gum. By archil in the DIARY formula, liquid archil is intended. You might use carmine, as you suggest; indeed, a popular marking-ink is on the market so coloured. (2) Teething-syrup (without opium):—

One-half to a whole teaspoonful, according to age, at intervals of a half to two hours.

(3) Teething-powders.—The simpler these are made the be ter. Well triturate 1 oz. calomel with $1\frac{1}{2}$ oz. sacch. lactis, and give for children up to 6 months 1 gr.; over 6 months and under 12 months, $1\frac{1}{2}$ gr.; 12 months and under 2 years, $2\frac{1}{2}$ grs.

246/61. A. G. (Dacca).—We do not know "Marigold Ointment" for veterinary use.

235,16. H. C. L.—(1) The only thing we can suggest is to try and dissolve the rubber in either bisulphide of carbon or benzine; but would it not be better to sell it to a rubber-manufacturer, as we anticipate many difficulties will crop up? (2) Formula for herb-beer extract in DIARY, page 367, will give you a hint for making black beer.

249/11. W. R. W.—(1) We do not know the preparation you mention. Is it the carbolic colloid mentioned on page 358 of the DIARY? (2) We cannot undertake to supply formulæ to imitate proprietary medicines. (3) Cough-powders for Horses :-

	Pulv. digitalis		••	••	••	3ss.
	" belladonne		• •	• •	••	5j.
t - T	Potass. chlor			••	••	5j.
	,, nitr			••	••	.5j.
	Pulv. opii	••	••	••	••	3ss.
	" glycyrrh.	• •	• •	••	0.0	5iv.
м.	Ft. pnlv.	•				
Omni noo	ete c. cibo.					

(4) Red Cough-mixture to suit your lahel :-

		• •				
Vin. opii			••	• •		5vj.
" antim.		••	••		••	žj.
Spt. chlorof.	••		••	••	••	3j.
Ac. sulph. dil		••	••	• •	••	ZSS.
Syr. rhœados			••			žiij.
Ess. rub. idæ	æ	• •	• •	••	••	q.s.
Syrup. ad		••	••	• •		3xx

Dose for adults: One teaspoonful three times a day. Children from 10 to 30 drops, according to age.

242/30. F.B. (Preston).—Your sample of Washing-oil is merely a solution of soap in water. A similar article could be made hy pouring hoiling water on yellow soap cut into small pieces. A few experiments would enable you to adjust the strength so as to give an oily solution.

247/14. Airated.—The colouring liquid for giving orange tint to mineral waters appears to he a solution of an orange aniline dye, with just a trace of ol. aurantii dulc.

253/54. Chimisque.—Formulæ for Antibilious and Liver Pills suitable as a proprietary article are so numerous that it is difficult to make a selection. Here are a few:-

```
(1)
      Podophyllini ..
                                          gr. 1 to gr. ss.
      Pil. coloc. et hyos.
                                         gr. iiss.,, gr. iv.
M. Ft. pil.
                              (2)
      Podophyllini ..
                             .. ..
                                          gr. 1 to gr. ss.
      Pil. rhei co.
                                          gr. iij. ,, gr. v.
```

In place of podophyllin either hlue-pill or calomel in gr. j to gr. ij. may he substituted, and some people add to pills such as these, sulphate of quinine gr. \(\frac{1}{4}\) to gr. ss., ext. taraxacum, and sometimes a trace of cayenne pepper. Euonymin in gr. ij. to gr. iv. doses, either alone or in comhination with leptandrin or iridin gr. ij., is considered a perfect pill by some people. The addition of any warming essential oil, such as cloves, peppermint, caraway, or cajuput, improves the efficacy, and gives a distinctive characteristic to any pills of the sort.

253/71. Aloin.—The Effect of Light upon Ferri et Quin. Cit. will depend upon its combination with other substances in solution. We presume you mean a solution (?) of the substance; if you send on the formula for the mixture which has attracted your attention, we will endeavour to assist you.

252/57. F. B.-Sample powder sent as heing both a Starch and a Glaze Combined seems to be potato-starch, mixed with a small proportion of powdered horax—probably ahout 1 to 16 or 20.

253/21. A. H. M. will find a formula for the Estimation of Tincture of Opium, suitable for "one who finds the B.P. process too troublesome," at page 415, Sepember 10, 1892, and see also correspondence on same subject at pages 349 and 281 of the same volume.

253/6. Barbadocs.—Your Cure for Colic, Blown, Scour, &c., in Horses, Cattle, and Sheep, seems to consist of turpentine, linseed oil coloured with alkanet, tincture of opium, and solution of potash. We would hardly care to give you a formula for it until you send us what the directions are for the various purposes and animals. For useful information and formulæ in connection with counter-prescribing for animals, see "Veterinary Counter Practice," published at this office.

252/56. Hector.—Red Leicester Condition-balls.—We do not know, hut you will find the following useful, likely to answer your purpose, and of a red colonr:-

Ferri carb.	••	 		 5iss.
P. pot. nit.		 	••	 3j.
P. quassiæ		 		 3j-
Antim, sulphu	ret.	 		 58s.
Pulv. zingib.		 		 Zss.
Ol. fœniculi		 • •		 gtt. x.

Mass with linseed meal and simple syrup to form 6 drachm balls. Dose: One twice or three times a week.

Oil of Bricks (Ol. lateritium) orginally was made hy pouring olive oil over highly-heated hricks or hrickdust and distilling. A mixture of linseed oil and turpentine mixed either with animal oil or Barbadoes tar in very small proportion, or simply coloured with alkanet, is nowadays more often used. Oil of Pide (?).—We do not know, hut is there not some mistake? Might not oil of spike or oil of Peter (Petræ) he meant? Either of these or hoth are often met with in comhination with oil of hricks in certain sworn-by prescriptions of the knowing cone of the stable. prescriptions of the knowing ones of the stable. See last DIARY (1894) for formulæ for these.

25/67. Verax.—A Cement Suitable for Fixing Joints of Dynamos, Steam-boilers, &c., subject to heat, may be made hy mixing hoiled linseed oil, litharge, red-lead, and whitelead to a suitable consistency. The proportions are not essential, but the more the red-lead predominates the quicker it will set; should the white predominate it sets much slower. This cement may be spread upon flannel, linen, calico, or even paper.

INFORMATION SUPPLIED.

For this section we are always glad to receive from subscribers brief notes on practical subjects, recipes which have been found good in practice or which have required modification, and hints or fresh ideas on any pharmaceutical or trade matter.

Marking-ink Stains.—Phosphate (258/61), referring to a reply concerning the removal of marking-ink stains from linen, says he found the following plan answer exceedingly well on stains which did not seem to he acted on in the least with cyanide of potassium. The marks were first hrushed over with tincture of iodine, and then soaked in a strong solution of hyphosulphite of soda. By this means every trace of both the iodine and the marking-ink were removed.

Rext Weck.

Meetings, &c., to be held, and business to be transacted thereat. Suitable notices will be inserted in this section if received by the Editor on or before Wednesday.

Wednesday, March 21.

Royal Microscopical Society, 20 Hanover Squarc, W., at 8 P.M. Mr. A. D. Michael, "Notes on the Uropodine."

The Western Chemists' Association, London. Smokingconcert at the Westhourne Restaurant, 1 Craven Road, W., at 9 P.M.

Thursday, March 22.
Chemical Society. Anniversary meeting. Presidential address; election of officers and council. At 8 P.M.

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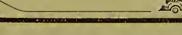
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WHOLESALE DRUGGISTS,

MANUFACTURING CHEMISTS, AND COMMISSION MERCHANTS, Head Office and Factory, DUNEDIN.

BRANCH HOUSES:

High Street, CHRISTCHURCH, Hunter Street, WELLINGTON, Shortland Street, AUCKLAND,

Patent and Proprietary Medicines Agency.



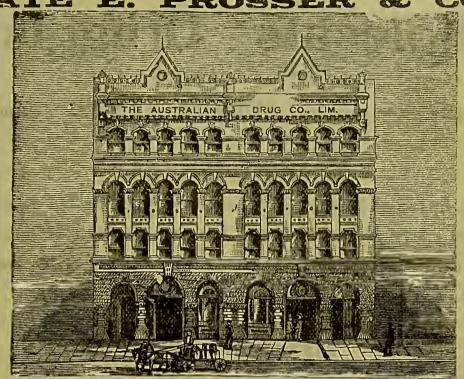
NEW ZEALAND

LONDON AGENTS-

Messrs. GRIMWADE, RIDLEY & Co., 82 Bishopsgate Street.

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MPORTERS OF PATENT MEDICINES, DRUGGISTS'



Wholesale Druggists, 19 & 21 O'Connell Street, SYDNEY.

Agencies for Patent Medicines and other Goods solicited. Travellers cover New South Wales and Queensland.

London Agents: LAUGHLAND, MACKAY & BAKER, 50 Lime Street, E.C.

NEW SOUTH WALES.



DOORS FROM KING STREET.

Nos. 158, 160, 162, & 268

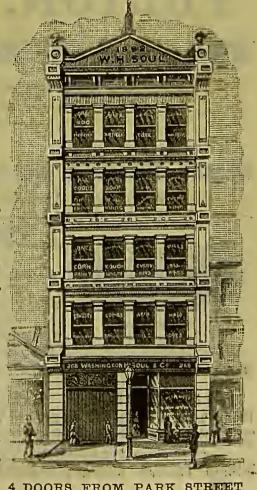
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SYDNEY, N.S.W.

Will be pleased to fill any lines from their large Stock, which the Trade may be unable to obtain from their usual Jobbers.

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W. H. S. & Co. can arrange with pushing Houses to receive Goods on Commission Sale in this Colony.



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Warranted Healthy.
Wholesale and for Exportation
Direct from Marshes.

FITCH & NOTTINGHAM,

TRADE MARK
LEECH BREEDERS,
MEGISTERED.
4 CANONBURY SOUARE, LONDON, N.
All Orders by Post receive immediate attention.

More than 100 per cent. Profit. Sell at Sight.

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Penny Pictorial Packets of Flower and Vegetable Seeds.

Grocers and Shopkcepers can more than double their money by solling our reliable and genuine Seeds.

5/6 per gross. 6 gross carriage paid, 12 gross carriage paid and 5 per cent. discount. Cash with order.

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CHEMISTS, DRUGGISTS,

GENERAL MERCHANTS, LUCKNOW, OUDH, INDIA,

Possess exceptional facilities for the introduction of NEW SPECIALITIES, Patent Medicines, Druggists' Sundries, Perfumery, &c.

HOCKIN, WILSON & CO.'S PAGE.

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Why we specially want Shippers to ask us for prices when buying Drnggists' goods is because we hold large and varied stock and can supply promptly.

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REASON

Is that we thoroughly understand the Export Trade, and know what buyers want.

WANT ANY FEEDING BOTTLES?

We are fitting all kinds. We use no common indiarubber that perishes. We have box top, glass-screw stoppers, green and white bottles.

Prices from 27/- gross.

EVERYBODY KNOWS

That this the season to buy Saline. The question is, whose to buy? Our

GRAPE JUICE SALINE

Is as good as it can be made.

In self-opening tins with coloured label, 3/- doz.

In 8-oz. Cheltenhams, each in cartoon, 8/- doz.

6 doz. of the larger size, with buyer's own name on.

NOBODY LIKES

To be worried by Insects, and you won't be if you buy The Acmc Brand

INSECT

POWDER

1d.	black and g	old, dece	orated	tins	6/-	gross.
<i>3d</i> .	attractively	-labelle	I tins.		12/-	"
6d.	>>	12	"		24/-	•,
1/-	23	12	22		39/-	"

BAD SMELLS WON'T STOP

Where disinfectants are used. The Acme Brand

CARBOLIC POWDER IS GOOD.

1d.	pack	ets, hal	f-gross b	oxes			6/6 gross
4d.	tins,	attract	ive wrap	per.			2/- doz.
6d.	"	decorat	ed black	and	gold		3/6 ,,
1/-	*,	22	;,		,,		6/6 ,,
	This	bears	no name.	only	Acm	e E	rand.

THE ORDER OF THE BATH

Is now to use a glove instead of the oldfashioned flaunce.

2 doz. pairs assorted 6d. gloves, in glass-top box, 3/3 doz. pairs; also white Turco from 1/9 pair.

THE ACME LOOFAH BATH MAT

Is a real luxury; iti s always dry and warm to the feet.

In two sizes, 18/- and 21/- doz.

SOUND TEETH

Are often spoiled by using bad Tooth Powders.
Our

TOOTH PASTES and POWDERS

Are pure and good.					
Acme Brand assorted Tooth Powder,					
in 6 <i>d</i> . tins		3,'- dcz.			
Carbolic Tooth Powder, 3d. tins		15/- gros			
" " " ld. tins		8,',			
Rose, Quininc and Carbolic Powder,					
in glass bottle with spoon		8/- doz.			
Cherry Tooth Paste		3,6 ,,			
Areca Nut ,,		3,6 ,,			
Carbolic Tooth Paste in elega	пt				
oval pots		4,6 ,,			
The Acmc Tooth Soap in rou	nd				
celluloid boxes, stamped in go	old				
and silver, 1/-, 8/- doz.; 6d.		4/3 ,,			

VULCANITE WON'T RUST.

Therefore the

$egin{aligned} EUREKA \ SPATULAS \end{aligned}$

Can't, as they are a steel knife covered with this material. They are easily

CLEANED

And cau be used for Mercurial Oiutments, &c.

BALANCED HANDLES.

3 4 5 6 7 8 9 10 inch

17/6 20/- 23/- 28/- 39/- 43/- 50/- 62/- doz.

We are Sole Agents for the United Kingdom and Colonies.

YES? YOU CAN

Have a really useful list of Sundries and Packed Drugs by writing to us for one.

13-16 New Inn Yard, 186 Tottenham Court Rd., London, W.C.

GLYCBRINE



PRONOUNCED BY THE MEDICAL PROFESSION TO Extract from Analytical Report of Dr. S. Rideal, F.C.S., F.I.C., F.G.S., May 21st, 1892. "Practically tasteless and free from smell, contained no fat or resin, * * * carefully manufactured."

& CO., W

For Destroying Weeds, Moss, &c., on Garden Walks, Carriage Drives, Roads, Meadows, &c.

We desire to point out the special advantages which the sale of our "Aome" Weed Killer affords the Trade.

1. The "Aome" Weed Killer is used in the gardens and on the estates of the Gentry everywhere, and by Corporations and Burial Boards in Parks

Cemeteries, &c.

2. Our Retail Prices are such as will induce a ready sale, and we make no charge for 1 and 2 gallon tins.

3. We pay carriage on twelve 1-gall tins, or on three 2 and six 1 gall tins, and on 10 galls in drums and upwards, to any Station or Port in

4. Drums and casks are charged at cost price. Full price allowed when returned.

Trade and Export Terms on application. The most Liberal Terms to the Trade.

RETAIL PRICES.—In 1 and 2 gallon tins, 2/- per gallon (tins included); in 5-gallon drnms, 1/6 per gallon; 10, 15, and 20 gallons, 1/4 per gallon; in 40-gallon casks, 1/3 per gallon.

TESTIMONIALS received from Mr. HEAD, Crystal Palace; Mr. IRWIN LYNCH, Cambridge Botanic Gardens; and others. THE "AGME" WEED KILLER, FOR CHEAPNESS AND EFFICIENCY, HAS WON FOR ITSELF A NAME FAR ABOVE ALL OTHERS.

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SARG'S ORIGINAL BEEHIVE BRAND.



Sarg's GLYCERIN

WHITE, NATURAL, YELLOW, & ORANGE. STOCK KEPT IN LONDON OF 15 DIFFERENT KINDS.

Supplied in square blocks, each wrapped in paper and packed in cases of 1 owt. each. None Genuine unless Cases, Wrappers, and Blocks are branded both with Maker's Name, "SARG," and the

Sole Agent: FREDK. BOEHM, Cullum St., LONDON, E.C.

WHOLESALE DRUGGISTS. 109 & 111 Bethnal Green Road, London, N.E.

Cabinet Varnishes, Polishes, Glaze, Finishing Spirit, Glues, Wood Stains, Gums, Resins Shellacs.

PRICES FORWARDED ON APPLICATION. 48

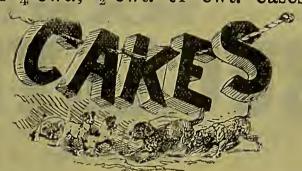
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SPRATT'S PATENT PET DOG CAKES.

RETAILED IN

7-lb. or 14-lb. Tins or Boxes, or in $\frac{1}{4}$ -cwt., $\frac{1}{2}$ -cwt. or cwt. Cases.





ASSIST DENTITION & FORM A VALUABLE DIET FOR PUPPIES AFTER WEANING.

SOLD IN

7-lb. or 14-lb. Tins or Boxes, or $\frac{1}{4}$ -cwt. $\frac{1}{2}$ -cwt., or cwt. Cases.

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TRY IT! WHAT?

WILEY'S CHEMICAL ESSENCE

LAMENESS IN HORSES.

If you will, you can sell it, and it will bring you credit. You can have attractive Handbills free.

Sole Maker-F. E. ROOKLEDGE, EASINGWOLD.
ORDER FROM YOUR WHOLESALE HOUSE.

DR. BOW'S LINIMENT. Of late a spurious article has been offered for sale, put up in imitation of the genuine one

even to copying the Pamphlet, Wrapper, and Labels. To protect the public from, and facilitate proceedings against, such frauds, the Proprietor has registered the Trade Mark here shown, a reduced copy of which will be found on the outside label on every bottle put up after this date. As a further security, the name "DR. BOW'S LINI-MENT" (also a trade mark) appears in the Government Stamp.

157,810

BARGLAY & SONS, LIMITED, LONDON RAIMES, CLARK & CO., EDINBURGH & YORK

For the Proprietor, December 1st, 1891.



25-LB, TINS. 2 TINS IN CASE.

THE CHEMIST AND DRUGGIST says:-

"The oil is free from low-boiling terpenes, has a specific gravity of 0.9075, and has a delightful odour."



KANGAROO

Is admitted to be the Purest Eucalyptus Oil yet introduced to the public. To be obtained of your Wholesale Druggist.

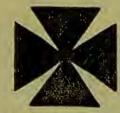


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CAMPHORTAR

8/- per Gross

CAMPHORTAR



A combination of Camphor, Eucalyptus, and Coal Tar. A Powerful Disinfectant, Deodorizer, Insect Destroyer, and Air Purifler.

SOLD BY ALL LONDON SUNDRY HOUSES.

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AIRTIGHT, ODOURLESS, WATERPROOF PACKETS

Retains the Chlorine and keeps the Powder dry longer than any other packet.

4 oz., 8/- gross; 8 oz., 16/- gross; 16 oz., 30/- gross. SOLD BY THE PRINCIPAL DRUG AND SUNDRY HOUSES.

MANUFACTURED ONLY BY

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AWARDS.





JAMAICA, 1891.

"Pineotas" Powders, Fluids, and Soaps; Carbolle Powders, Fluids, and Soaps; Crude Carbolle Acid; 95.97% Pale Carbolle Acid 97/99%; Water-white Acid; Sheep Dips and Petroleum Jelly.

PRICE LISTS FREE,

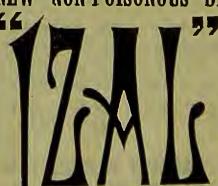
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LD. WANDSWORTH CHEMICAL WORKS, WANDSWORTH, S.W.

AGENCY-116 PRINCESS STREET, MANCHESTER.

"IZAL" IS THE

NEW NON-POISONOUS DISINFECTANT,



And is now supplied by the chief Wholesale Houses.

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Printed Matter, And any information the Trade may require, can be obtained on application to

Allen & Hanburys,

BETHNAL GREEN, LONDON,

Who are the Sole Bottling Agents for the Manufac-facturers.

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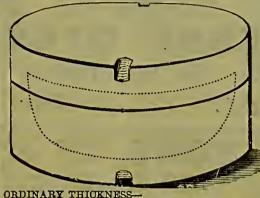
WILLIAM TOOGOOD.

TOOGOOD'S

IMPROVED PATENT

EARTHENWARE COVERED POTS

Are claimed to be the most perfect and convenient yet offered to the Trade.



ORDINARY THICKNESS—

1 dr. 2 dr. 1

1/6 1/6 1/6 1/8 1/10 2/
THIN FOR DISPENSING—

1/7 1/9 2/- 2/2 2/5

Owing to the increasing demand for our Patent Pots, we have introduced a Special THIN Series for Dispensing.

These Pots are beautifully glazed and finished, and, being very light, are specially adapted for sending by post.

2 3 4 8 8 omces. 2/3 2/10 3/6 4/6 5/6 per dex

8 4 8 8 ounces. 8-4-5-6-per doz.

TOOGOOD'S BATHING CAPS. Write for New Season's List.

TOOGOOD'S SPONGE BAGS. Write for New Season's List.

TOOGOOD'S FLESH GLOVES. Write for New Season's List.

TOOGOOD'S FEEDING BOTTLES. Write for Special List.

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JONES & COMPANY,

COPPERFIELD ROAD,

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LARGEST MAKERS IN THE KINGDOK

We are prepared to supply METHYLATED SPIRIT in 5-gallon quantities at Lowest Prices.

REDUCTIONS TO LARGE BUYERS.

SAMPLES FREE.

BOORD & SON.

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Quotations for S. V. R. Methylated Spirit and Finish on application.
FINEST ORANGE WINE FOR QUININE.

JAMES S.J. T. B. BURROUGH S.J. T. B.

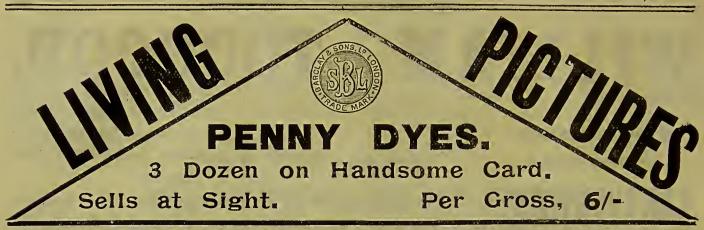
CALE ST., CHELSEA, S.W.

and Methylated Spirit

AT LOWEST PRICES.

WRITE FOR QUOTATIONS.

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BARCLAY & SONS, LTD., 95 FARRINGDON STREET.

ESTABLISHED A.D.

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The Original Arnicated Corn and see that

YOUNGS Bunion goods are supplied, as there are many worthless Plasters. imitations.

HENRY YOUNG, Manufacturer, LONDON.

THE NEW BOOT-WARMER,

Chemists are respectfully referred to page 415 of The Chemists' and Druggists' Diary, 1894, where Illustrations and important Press Opinions of this saleable article are given.

The Westminster Budget of September 5, 1893, says:—"The 'boot drier and warmer' of Messrs. Belden is an improved boot tree, by means of which boots are not only kept in shape, but heated and dried while on the tree. The necessary heat is obtained by the insertion of a small iron, which has been previously heated, into a perforated case fixed in the hollow part of the tree. A strong sock of soft material is let into the bottom of the tree, and the warmer, lying immediately on this, will become a boon to large numbers of men and women, especially to those who are obliged to be out 'in all weathers."

All Sizes and Shapes kept in stock or obtained on the shortest notice.

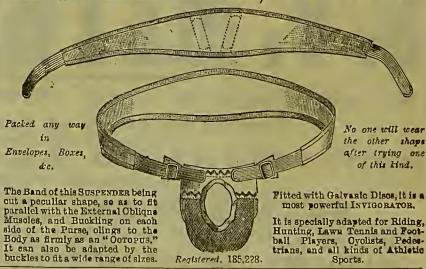
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To be obtained of all Wholesale Houses.

ELASTIC SURGICAL STOCKING STOCKINGS, APPLIANCES, &c. PATENT ADJUSTABLE Patent Pile, Protected, 14,618. The Pile lying over the India-rubber Cords, protecting them and forming a smooth soft surface to the limb.

NOVELTY. LATEST SUSPENSORY BANDAGE, NEW



Fitted with Galvanic Discs, it is a

It is specially adapted for Riding, Hunting, Lawn Tennis and Football Players, Cyclists, Pedestrians, and all kinds of Athletic Sports.

Handbook of my Manufactures will be forwarded to any Surgical Instrument Maker or Chemist free.

MAGNETIC BELTS AUND APPLIANCES.

Elastic Surgical Stockings, Knee Caps, &c.
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Bath and Rubbing Gloves. Bathing Caps and Belts. Trusses of every description. Pore-plastic Jackets. Chest Expanding Braces.

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MANUFACTURER AND PATENTEE:-

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ROUND, OVAL, SQUARE, or FOLDING, for the

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ROBINSON & SONS, LIM., WHEATBRIDGE MILL & HOLMBROOK WORKS,

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Telephone 1365.

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Dear Sir,

When you Want Bottles next time, don't forget to drop Yours faithfully, an enquiry to

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EVERY DESCRIPTION.

Revised Price List on Application.

FEEDING BOTTLES AT LOW RATES.

Write for Prices of any kind of Bottle required to

East London Glass Bottle Warehouse,

36, 38, & 40 GREAT GARDEN STREET, WHITECHAPEL, LONDON, E.

NEW CAPSULING MACHIN

The only Machine which leaves no crease or pleat on the Capsule.

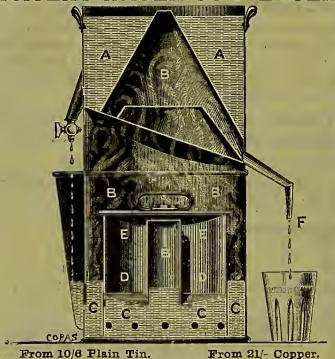


Can be fixed to any Counter. A single pull of the lever is sufficient to fix the Capsule.

MELIN, 37 Crutched Friars, LONDON, Patentee—C.

BRACHER'S

PATENT WATER GONDENSER



From 10/6 Plain Tin.

Manufactured by

JOHN A. GILBERT & CO.

Mill, Scale, and Canister Makers,

2 & 4 Mount Pleasant, Elm St., Gray's Inn Rd., LONDON, W.C. PRICE LIST POST FREE.

GOOD AND CHEAP.

From Stores in London or direct from the works.

THE NEW SHAPE FLATS, With rounded edges, or the ordinary kind, plain or graduated.

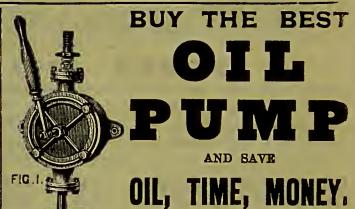
3 and 4 ounce 8/- per gross. 9/-WHITE MOULDED PHIALS. "

2 oz. 5/3 per gross.

8 oz. 9/- per gross.

SPECIAL NOTICE.—Six gross and upwards of assorted sizes sent Carriage Free to any part of England. Smaller quantities not carriage paid. Sample Bottle sent free on application.

I. ISAACS & CO., GLASS BOTTLE MANUFACTURERS, Francis St., Tottenham Court Road, LONDON, W.C. Betablished 50 Years. Bankers-London and Westminster Bank.



THOUSANDS IN USE.

FIC.2. We have bought the Stock of these Pumps from

MESSRS. PONTIFEX & WOOD, SHOE LANE, LONDON,

Who have given up this part of their business, and it is our intention to continue same.

We hold a Good Stock, and can give Prompt Delivery.

Write for full particulars and prices of The "Farringdon"
Patent Oil Pumps to

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(Sent on Trial seven days, on receipt of two references): Particulars and Testimenials on application,

ENGRAVED WINDOW TABLETS,

PRESCRIPTIONS
ACCURATELY
PREPARED

LAMPS, &c.,

For Chemists,
IN OPAL AND COLOURED GLASS.

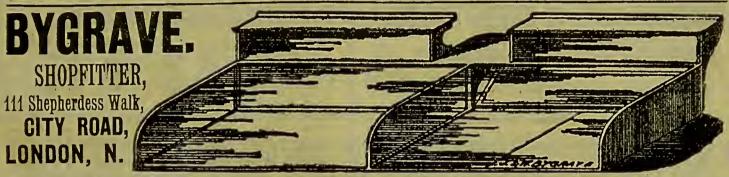
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A Tablet as above, size 13 × 10, framed complete, any wording, sent (carriage paid) for 4/6, two for 8/-

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Bent-top plate-glass Counter Showcase, in French polished mahogany, or ebonized, with two upright mirror plate-glass fronted shelves, and table in centre for serving over, and mahogany falls at back lined with mirror plate glass, inside fitted with crimson velvet trays—if 5 ft. long, 18 in. wide, 8 in. high (total height 13 in.), £5 10s.; 5 per cent. off for cash.

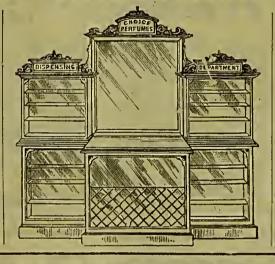
"THE CHEMIST" DISPENSING COUNTER

6 feet long by 2 feet wide £24 If the Dispensing Screen only .. £12

This handsome Dispensing Counter is manufactured in Spanish mahogany, and of the best workmanship, so that it will stand any climate. The counter has a solid mahogany top and plate-glass case front. The centre part fitted to take sponge. A mahogany screen on top, consisting of two plate-glass cases, with shelves inside, and large plate-glass mirror in the centre, and three glass tablets with gold writing in ornamental mahogany carved work. The back of screen fitted with small shelves and a glass poison-cupboard. The luside of counter fitted with strong counter-drawers, label and cork drawer, open shelves, &c.

BOWLING & GOVIER,

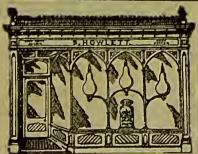
Manufacturers of High-class Shop Fittings, GUN STREET, BRUSHFIELD STREET, BISHOPSGATE, E.C.





NOTICE TO THE TRADE.

In consequence of inferior Second hand Goods being sold for our make, we have found it necessary to protect our reputation for best work with warrade Mark, as above, and unless goods are so stamped we cannot be answerable.



ESTABLISHED 1830.

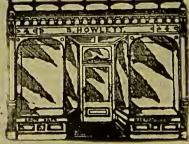
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MEDICAL AND

GENERAL SHOP FITTER.

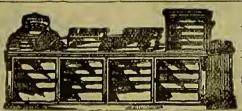
Shop-Front Builder and Show-Case Maker.

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SHOPS FITTED by Contract, in Town or Country, with every requisite, on the most improved principles, and at lowest prices.

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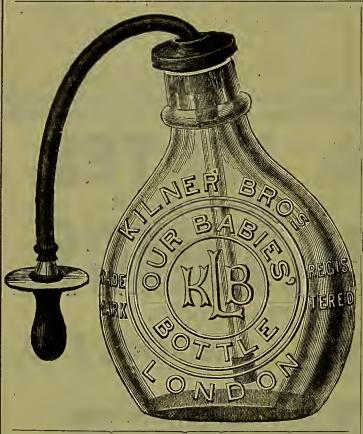
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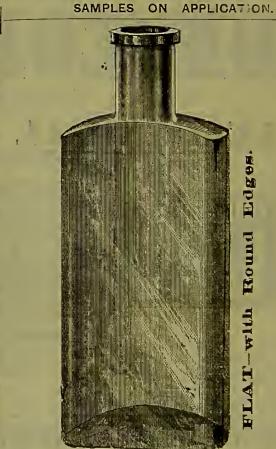
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To facilitate reference, three letters have been placed at the top of each page as an indication of the first heading to be found thereon.

For distinction, the contents of the British Pharmacopæia have been printed in large type, and all Unofficial matter in small type, with the exception of the paragraphs commencing "Solubility" and "Medicinal Properties," also interpretations following Official tests in the same sentence. The Official Synonyms are distinguished as B.P. Syn., others given for Official substances as N.O. Syn.

Our comparisons of the Foreign Pharmacopæias have been revised with the following new editions:—Danish 1893, German 1890, Russian 1891, Swiss 1893, United States 1893. The New Italian Pharmacopæia has been added to our list, which now numbers fifteen.

Owing to the heavy expenses connected with the production of this book, it has been found necessary to increase the price from ten shillings and sixpence to twelve shillings and sixpence; the matter has been enlarged by 120 pages, in addition to the 70 pages embodied in the last Edition. The size of the book, however, has been kept within reasonable limits by printing the Index in double column, thereby reducing it 60 pages.

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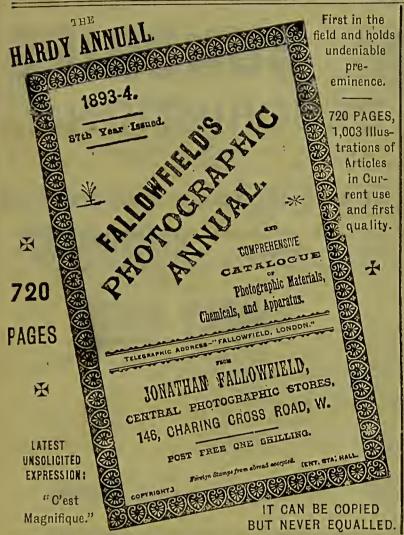
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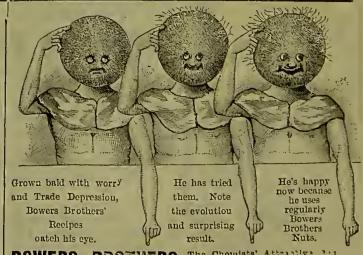
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The Offices of "THE CHEMIST AND DRUGGIST" will be CLOSED from THURSDAY, 22nd inst., to TUESDAY, 27th.

TERMS.

Advertisements in this department must be paid for in advance. From this rule no deviation can be made. Insertions are charged at the rate of \$\frac{1}{2}d\$, per word, provided the advertiser attaches his name and address, for each word of which he must also pay at the same rate; or if he pays \$1\textbf{d}\$. per word his name and address will be registered and a figure attached to his advertisement. All correspondence referring to that figure must be addressed to "The Publisher of The Chemist and Druggist, 42 Cannon Street, E.O.," and the figure must be distinctly endorsed upon the envelope. Letters will then be forwarded to their proper destination. A price is counted as one word—as, e.g., \$\frac{1}{2}\$1 10s. \$6\text{i}\$.

DEPOSIT OF MONEY**—In order to ensure safety we offer the following system:—The purchaser of anything advertised in the Exchange Column may remit the amount to us, accompanied by a commission of \$6\text{d}\$. if the amount is \$\frac{2}{2}\$3 or under; and 1s. if over that sum. We acknowledge receipt of deposit to both parties, and hold the mouey until we are satisfied that either the goods are returned to their original owner or the purchase is completed.

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Literature.

Chemist and Druggist, several vols.; anything to clear. Gilbert, Sandbach.

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Chemist and Druggist, 1886-87, without advertisements; 1888 to 1893 inclusive, perfect, good condition, without diaries; what offers? 18/26, Office of The Chemist and Druggist, 42 Cannon Street, E.C.

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For sale or exchange, 4 3-gall, carboys; leechstand; pair Avery's counter-3cales, 12-in. beam; mahogany drawers; what offers? Scott, North Oave, Yorkshire.

Chemists' shop fittings (secondhand), great bargains, comprising drawers, counters, dispensing-screen, wall-cases, shop-rounds, &c. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Dispensing-screen, very handsome, mirror centre, glass counter under same, with sponge-case, 6 ft. long, price 15L; also, 6 ft. bent-plateglass counter-case, 6L. Philip Josephs, 54 Old Street, Goswell Road, Loudon, E.C.

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Water-mattress, 36 in. by 48 in.; only three weeks in use; what offers? McIver, Dingwall.

A Bracher's sifter and mixer, with 3 sieves; a bargain. Powell, 116 Denmark Hill, London, S.E.

For sale, 4 lbs. finest Mitcham oil of lavender,

For sale, 4 lbs. thest Mitcham oil of lavender, 65s. per lb.; also 9 carbolic smoke-balls, 5 per cent. under maker's cash price. James Watson, Rose Oorner, Norwich.

For sale, † oz. bichloride of platinum, dispensing-scales (Maw's book, fig. 7), and cyclostyle: cost 30s.; hardly used; offers wanted. "Analyst." 144 Desborough Road. High Wycombe.

Wycombe.

Spongio-piline goods (job lines):—Chest-protectors, 3s. doz.; gloves, 2s. 6d. doz.; shoes, 4s. doz.; anklets 2s. doz.; wrist-protectors, 3s. doz.; about 50 doz. various pieces, suitable for surgical purposes, 1s. doz. Natali, 40 Gray's Lin Road, London.

WANTED.

WANTED.

Chemical balance and spectroscope. Heap, Chemist, Hanley.

Camera, ‡ or ‡ plate. Particulars to Forster, 174 Shield Street, Newcastle-on-Tyne.

Two 4-gallon swan-necked carboys, with cutglass stoppers. Button, 7 Brentwood, Pendleton.

The Chemist and Druggist, vols. 5, 7, 26, and 28. complets, unbound; also Angust 15, 1835. Send price to L. B., Office of The Chemist And Druggist, 42 Cannon Street, E.O.

Tall homopathie show case, to match walnut fittings if possible: size, price, and full particulars to shaw. Chemist, Seacombe. Would give in exchange dispensing and counter scales: see Maw's list (new), page 222, figs. 2 and 8.

Address Wanted.

Victoria Indiarubber Mills, EDINBURGH. Samples, &c., on application.

W. W. Maitland, masseur, late of 54 Brook Street, Grosvenor Square, W. Wilson, Chemist, Harrogate.



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THE "COMPACT" CONTINUOUS-ACTION SODA-WATER MACHINE.

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Specially designed for use where space is an object, and for those having a large retail trade, such as Chemists, Hospitals, Restaurateurs, Hotel Proprietors, &c. They are ready for work immediately, require no fixing, and produce Aërated Waters of the very highest quality at a minimum of cost.

NO DANCER. NO MESS. PERFECTLY RELIABLE.

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No. 1 Size, complete with Turnovcr or Syphon - filling
Machine, and fitted with fast and loose Pulleys for
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Producing Capacity by Hand-power 600 doz. per day.

" Power 1,200 " "

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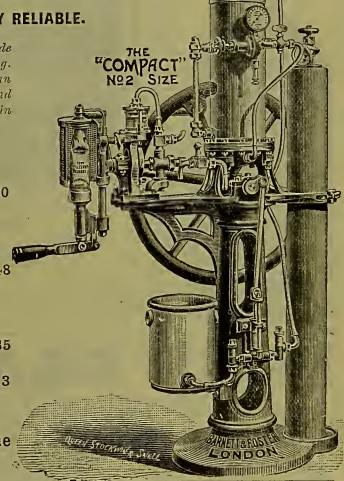
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Or without Syrup Pump to Turnover Machine

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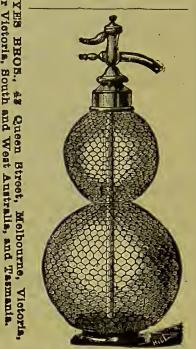
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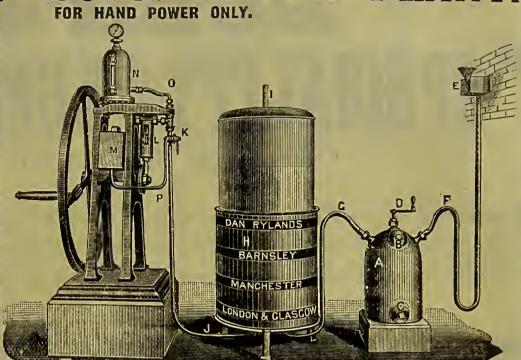
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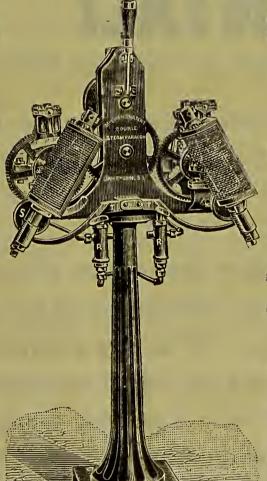
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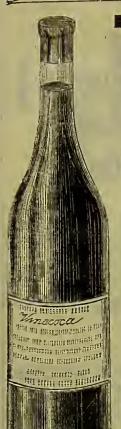
CAMWAL.—All Chemists are cordially invited to inspect any or all of the above factories, and they SHOULD REMEMBER that CAMWAL IS THE ONLY COMPANY WHICH SUPPLIES NONE OTHER THAN CHEMISTS.

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The great Brain and Nerve Tonic. Recommended for

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Wallyans the Spirits;

Removes Drowsiness.

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Pays to stock because it bears a larger profit than any similar preparation, because the sale steadily increases, and because it is more popular than ever with the medical profession; and, on account of its extreme palatability, it recommends itself to the public.

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From the results of my Analyses of various Beef Wines I have had occasion to examine, none have equalled as regards strength, purity of ingredients, and (of no less importance) the skilful and judicious manner in which the respective ingredients have been proportioned and combined, the Liebig's Beef Wine manufactured by Mr. B. Robinson, of Pendleton, Manchester.

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December 15, 1888.

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One onnee of these Waters added to Forty Ounces of Distilled Water forms a clear Mcdicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacoposia, and free from all Chemical impurity. They will keep good any length of time in any climate.

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TO THE

CHEMISTS & DRUGGISTS

GREAT BRITAIN.

TELEGRAPHIC ADDRESS:

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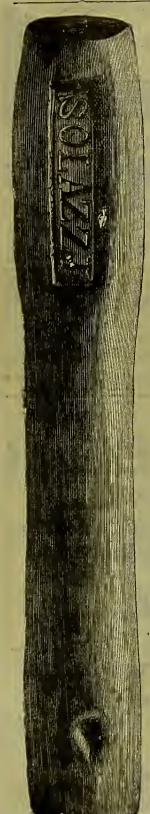
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Distillers of Essential Oils and Cultivators of Medicinal Plants,

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SOLID AND LIQUID EXTRACTS.

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Dedicated by gracious permission to PRINCESS MAY (H.R.H. The Duchess of York).

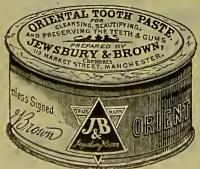
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Batts & Co.

COMP. WIEDICINS
Allen & Hanburys
Blyton, Astley & Co.
Burroughs, Weicome & Co.
Hooper, B., & Co., Leo & Co.
Lloyd, T. Howard & Co.
Parke, Davis & Co.
Richardson, J., & Co., Lim.

SONCENT. LIQRS.
Fletcher, Fletcher&Stevenson
Lloyd, T. Howard & Co.
Richardson, J., & Co., Lim.

Richardson, J., & Co., Lim.

ORN CURES
Pattison, G | solport Bros,
Warrick Brothers

OOTTON WOOL
Haynes, G., & Co. (Absorbent)
Lindner & Co.
Robinson & Sons (Absorbent)
Sanger, J., & Sons

CRSHID LINSERD

Morgan, G. H.
Mumford, S. G

Mumford, S. G

DENTIFICES

Bailey's Toilet Co.

Bescham; T.

Bronnley, H., & Co.

Hanson, O.

Jewsbury & Brown

Lakeman, J. J.

Robertshaw, H. A., & Co

Sutton, O., & Co.,

Warrick Bros. | Wilson, A.

Woods, W. (Areca Nut)

DENTISTRY

DENTISTRY
Browning. A. J...
Stevens, P. A.

Basin Fectants
Barclay & Sons, Lim.
Drysdale, J. W., & Oo
Dnssek Bros. & Co.
Elephant Disinfectant Co.
deoden, W. ..
Government Sanitary Co.
Ital

lial
Jeyes' Sanitary Compounds Co.
Mason, C. E., & Co.
May & Baker, L m.
National Che a cal Co.
sanitas Co., Lim.
Beabury & Johnson
Tyrer, T., & Co.
Wandsworth Chemical Works,
Lim.

Wantsword States of the Lim.

DOG REDICINES

Byratt's Patent, Lim.

DRUGS

Graf, F. | Hopf, R.

Morrison, R, & Co.

kichardson, J., & Co., Lim.

(Grinders)

Richardson, J.. & Co., Lim.
(Grinders)

PRUGCIBTS' SUM.
Ayrton & Saunders
Balley, M., & Co.
Barclay & Sons, Lim.
Belden, E. & W.
Ohemiats' Association, Lim.
Crowden & Garrod
Evans, Loscher & Wabb
Evans, Sons & Co. (Savars)
Fawssett, T.
Fordham, W. B., & Sons, Lim.
Gilbertson, H., & Sons
Heath Bros.
Hockim, Wilson & Co.
Kay Bros., Lim.
Maw, S., Son & Thompson
May, Roberts & Co.
Mallerson, H.
Newbery, F. & Sons
Queich, H. C.
Sanger & Sons | Schntze & Co.
Tidman & Son | Toogood, W.
Tunbridge & Wright
Wood, Vincent | Loung, J.
Wooff, D.

DRYSALTERIES

Browning, J. H., & Co.
DYES, & C.
Ayrton & Saunders
Orawahaw & Co.
Hatrick & Co., Lim.

EAU DE COLOGNE Farina, J. M. Hockin, Wilson & Co. (Farina) Martin, Marla (Nun) Muhlens. F.

ELECTRICAPPAR. Darton, F., & Co.

EMBROCATION

EMBROCATIO
Day & Sons
Elliman, Sons & Co.
ENEMA &
Barclays, Lim.
Hvans, Sons & Oo.
Sangar & Son
Wood, Vincent
ENGRAVERS
Caspar & Co., Lim.
Corsan, J. R.
ESSENCES
Roshm Predi

Corsan, J. R.

ESSENCES

Boehm, Fredk...
Boulton, J., & Co. (Lim.)
Bratby & Hinchilife, Lim.
Burgoyne, Burbldges & Co.
Bush, W. J.. & Co.
Carter, H. W., & Co.
Fistoner, Fistonerastevenson
Goodall, Backnouse & Co.
Idris & Co., Lim.
Lorimer & Co.
May & Baker, Lim.
Newball & Mason
Bylands, Dan, Lim.
Stevenson & Howell
Tyrer, P. (Anchovies)
Tyrer, P., (Anchovies)
Tyrer, T., & Co.
woolley, Sons & Co.

BSENTIAL OILS
Allen, Stafford, & Sons
Barrett, A. A.
Boehm, Fredk.
Brummerstaedt & Lüders
Bush, W. J., & Co.
Caidler, Walker & Co.
Dodge & Cleott
Drysdalc, J. W., & Co.
syans, Sons & Uc.
Hodgkinsons, Treacher &
Clarke
Lambert, S., & Co.
May & Baker, Lim.
Poppelreuter, W.
K.nsom, Wim., & Sons
Klonards & Bert
Rylands, Dan, Lim.
Socio & Andrioll
Symes & Co.
Treatt, R. O.
Warriok Bros.
Wright, Layman & Umney
ETHER
Duncan, Flockhart & Co.

ETHER

Duncan, Flockhart & Co.

Howards & Sons

Macfarlan, J. F., & Co.

May & Baker, Lnm.

Robbins, J., & Co.

Tyrer, T., & Co.

Whits, A., & Sons

Woolley, Sons & Co.

Wright, Layman & Umney

EUCALYPTUS

Jownle B.I.P. Co.

Drysdaie, J. W., & Co.

Evans, Lescher & Webb

Laughland, Mackay & Baker

Tasmanlan Eucalyptns on 100.

EXTRACT MEAT BTHER

Armour & Co.
Bovril, Lim.

Brand & Co.
Idris & Co. (Viking Co.)
Liebig Co.
Liquor Carris Co., Lim.
Mason, G., & Oo., Lim.
Wyeth, J., & Brother

Wysth, J., & Brother

EXTRCTS, FLUID
Allen & Hanburys
Burgoyns, Burbidges & Co.
Myans, Sons & Co.
Mistoher, Pletcher&Stsvenson
Hearon, Squire & Francis
Hooper, B., & Co.
Lioyd T., Howard, & Co.
Moss & Co.
Parke, Davis & Co.
Potter & Clierae
Ransom, W., & Son
kishardson, J., & Co., Lim,
Wright, Layman & Umney
EXTRACTS. SOLID

Wright, Layman & Umley
EXTRACTS, SOLID
Ransom, W., & Son
FEEDG BOTTLES
Burroughs, Wellcome & Co.
(Thermo Safe)
Chemists' Association, Lim.
Evans, Sons & Co.
Hearn, Wright & Co.
Hearn, Wright & Co.
Kliner Bros.
Marriott, E., & Co.
May, Roberts & Co.
May, Roberts & Co.
Surrey Packing Co.
FILTERS

FILTERS
Fordham, W. B., & Sons, Lim.
Mawson Filter Co.

FILTERG PAPERS
H. O. Quelch
FLY PAPERS
Bucban, D.
Strong, Christy
Tldman & Sons
Tunbridge & Wright

BOOD (Infants' & invalid's
Allen & Hanburys
Benger's Food
Brand & Co.
Brown & Polson
Unibnall, H. B.
Evans, Sons & Co.
Goodall, Backhuuse & Co.
Hearon, Squire & Francis
Liebig Co. | Lorimer & Co.
Mason, G., & Co. Lin
Mellin's Food | Nostlé, H.
Bidge, Dr. | Tyrer, P.
Viking Food Co.
Wyeth, J., & Bro.
GELATINES

GELS TINES

GINGER ALS Mills, R. M., & Co. Ross & Sons (Lim.) GLYCERINE Blyton, Astley & Co. (Pastilles)
Boehm, F. | Fink & Co.
Fnerst Bros.
Price's Candie Co.. Um

GOLD-BEATERS SHIN

Gates, T. & T.

GOUT & RHEU-MATIO PILZS Bromiey, O.

GRANULAR PREP.
Bishop, A., & Sons
Blyton, Astley & Co.
Kyans, Sons & Co.
Hearon, Squire & Francis
Lloyd, T. Howard, & Co.
Richardson, J., & Co., Lim.
Wright, Layman & Umnsy

Fink & Co. (Arable, &c.)

HAIR PREP.
Cassie & Co.
Chesebrough Co.
Edwards & Co.
Truefitt, H. P., Lim.

HERB BEER EXTS
Newball & Mason
Potter & Ciarke
Schmidt, Karl

HOMEOPATHIC Keene & Asnweil Leath & Ross Watson & Wates

HONEY Evans, Sons & Co. May, Roberts & Co.

HYPOPHOSPHITES Duncan Flockhart & Co. Fellows
Fletcher, Fietcher & Co.
Lorimer & Co. | Symes & Co.
Tyrer, T., & Co.
IN HALERS
Rurroughs Wallcome & Co.

Burronghs, Wellcome & Co. Hockin, Wilson & Co. Toogood, W.

INK
Bewley & Draper, Lim.
INSECTICIDES Lorimer & Co.
Sandford & Sons
stemer & Co.
Stevenson & Howell
IRON, REDUCED
Berger, Kahler & Co.
KETCHUP

KOLA PREPRTM Christy, T., & Co. LARD Ewen, J., & Sons

Evans, Sons & Oo. Lorimer & Oo.

LINT
Lindner & Co.
Liverpoot Lint Co.
Maw, S., Son & Thompson
Newsome, C.
Robinson & Sons

LIQUORICE Dennis Di Luggo & Co. "Solazzi"

LIQUORS
Fictioner, Fletcher & Stevenson
Opponheimer, Son & Co., Lim.

Opponheimer, Son & Co., Lim.

LOZENGES
Allen & Hanburys
Blyton, Astley & Co.
Davidson & Gray
Gibson, R., & Rons (Manfrs.
Guest, T., & Co.,
Hill & Sou | Lorimer & Co.
Ralmes & Co.
Eichardson, J., & Co., Lim.
Warrisk Brus.

MACHINERY Bennett, Sons & Shears (Lim.)
Burroughs, Wellcome & Co.
Carter, J. H.
Hockin, Wilson & Co.
Martin Perls & Co.
Ohlson, A.
Werner & Priederer (Knead
ing and Sifting)

MAGNESIA Bleasdale, W., & Co. Duncan, Fuller & Co. Evans, Sons & Co. Henry, T. & W. (Calcined) Hill, A. S., & Sons Lorimer & Co. Washington Chemicsi Co.

Washington Chemicsi Co.

MALT EXTRIF, &c.
Allen & Hanburys
Anderson & Co.
Burroughs, Welicome & Co.
(Kepler's)
Hearon, Squire & Francis
Leconts, Eugene
Lorimer & Co.
Moss, J., & Co.
Oppenhelmer, Sons & Co., Lim.
Raimes & Co.
Rimes, Clark & Co.
Richardson, Jonn, & Co. (Leicester), Lim.
Robinson & Co.

MARRHING INKS

MARKING INES

Bond, John (Crystal Palace)
(Ink and Pencils)

MEDICINE CHSTS
Burroughs, Welloome & Co.
Day, Son & Hewitt (Veterinary)
Day & Sons (Veterinary)
Elchardson, J., & Co., Lim.

Michardson, J., & Co., Lim.

MENTHOL

Burroughs, Wellcome & Co.
Christy, T., & Co.
Evans, Sons & Co.
Hoskin, Wilson & Co.
Maw S., Son & Thompson
Shirley Bros. | Tyrer, P.

MERCURIALS
Howards & Sons.

MERCURIALS
Howards & Sons
May & Baker, Llm,
Tyrer, T., & Co.
METH. SPIRTS, & o.
Boord & Son | Burrough, J.
Jones & Co.
Fhillips, G., & Co.
Smith, S., & Co.
Warren A. & J.
METHYLEM
Robbins, J., & Co.

Robbins, J., & Co.
MICROSCOPES
Darton, F., & Co.

MICKOSCOPE
Darton, F., & Co.

MILH
Nestlé, H. (Condensed)

MORPHIA

Macfarlan, J. F., & Co.
Smith, Bertie, & Co.
Smith, T. & H., & Co.
Smith, T. & H., & Co.
Fox, W. & Sons
Matthews, H., & Co.
Pinchin, Johnson & Co.
OINTINNT BASES

Burgess, E., jun.
Burroughs, Wellcome & Co.
(Lanoline)
Chesebrough Co. (Vaseline)
Christy, T., & Co.
Linotine
Lioyd, T. Howard, & Co.
Eichardsou, J., & Co. (Leicester), Lim.
OPHTHALMIC
Pomies, E. (Powders)

Pomies, E. (Powders)

OPTICIANS

Hopl, R.

OPTICIANS
Betwright & Grey
Darton, F., & Co.

OTTO OF ROSE
Warrick Bros.

OXIDE OF ZINO
Hubbuck, T., & Son, Lim.

PAT. MEDCNS, &c.
Anglo - American Drug Co.
(Lim.)
(Preserv.,
Atkinson & Barker (Infant
Barciny & Sona, Lim.
Beecham, T. (Pills)
Bow's, Dr., Liniment
Bromley, C. (Gout and Rheu.)
Chemists' Association, Lim.
Clarke's Blood Mixturs
Edwards & Son
Evans, Lescher & Webb
Fassett & Johnson
Feuning (Powders)
Goodald, Backhouse & Co.
Holloway (Pills and Cint.)
Hovenden & Sons
Lalor (Phosphodyne, &c.)
Mackenzie, Dr. (Catarrh Cure)
May, Roberts & Co.
Newbery, F., & Sons
Popular Remedies Mig. Co.
Boberts & Co. (Foreign)
Rooke, Dr., im.,
Sutton, W., & Co., Lim.
Wilson, A., Bunter's Nervine)
PEPPERMINT OIR
Bush, W. J., & Co.

Bush, W. J., & Co. Ransom, W., & Son Stevenson & Howell

Stevenson & Howeil
PEPSIN, & C.
Armour & Co.
Burroughs, Welicome & Co.
Chassaing & Co.
Fletcher, Fletcher&Stevenson
Newbery, F.,&Sons (Ingluvin)
Stern, G. & G.
Warner & Co. (Ingluvin)

PERFUMERY,
FANCY BOAPS

Barslay & Sons, Lim.
Bieasdaie & Co.
Blondeau & Cie. | Boehm, I.
Blyton, Astley & Co.
Brummerstaedt & Lüders
Burrouchs, Wellcome & Co.
Bush, W. & J., & Co.
Chemists' Association, Lim.
Chesebronzh Co.
Evans, Sons & Co.
Evans, J. & Sons
Farina, J. M.
Greensil & Son
Hovenden & Sons
Lanoline | Mulhens, F.
Newbery, F., & Bons (Berdoss
Pears' A & F., Lim.
Potter & Clerke
Price's Patent Candle Co.
Sorio & Andrioli
Tidman & Son | Treatt, E. C.
Truefit, H. P., Lim.
Warrick Brothers
West, T. (Okell's Mons)
Woolley, Sons & Co. (Powder)
Wright, Layman & Umney
PEROX. OF HYDR.

PEROX. OF HYDE.
May & Baker, Lim.
Robbins & Co.

PETROLEUM
Allen & Hanburys
Barolay & Sons, Llm.
Dee Oll Co., Lim.
Snowdon, Sons & Co.

PHARM. PREPS.

Allen & Hanburys
Armour & Co.
Baiss Bros.
Barron, Harveys & Co.
Barron, Harveys & Co.
Berron, Harveys & Co.
Berron, Harveys & Co.
Bothringer, C. F., & Sohns
Boulton, J., & Co., Lim.
Bryce & Rumpig
Burgoyne, Burbidges & Co.
Burronghs, Wellcome & Co.
Chassaing & Co.
Duncan, Flockhart & Co.
Ferris & Co.
Fietcher, Fletcher & Co.
Gles, Schacht & Co.
Gles, Schacht & Co.
Hearon, Squire & Francis
Hewlett & Son
Howards & Sons
Jeyes' Sanitary Compound & Co.
May & Baker, Lim,
Moss, J., & Co.
Mys & Baker, Lim,
Moss, J., & Co.
Coppenheimer, Son & Co., Lim.
Parke, Davis & Co.
Potter & Clarke
Radiauers
Bichardson, John, & Co. (LeieRichardson, John, & Co. (LeieRadiauers

Potter & Clarke
Radiauers
Richardson, John, & Co. (Lete
Roberts & Co. Joester), Lim.
Smith, T. & H., & Co.
Snitton, W., & Co.
Symes & Co.
Tyrer, T., & Co.
Warner, H. H., & Co., Lim.
White, Alfred, & Dona
Woolley, Sons & Co.
Wyeth, Juo., & Bro.
Zimmermann, A. & M

PHOTOGRAPHIC Barclay & Sons, Lim.
Blackfriars Photographic Co.
Boehm, Fredk.
Botwright & Grey
Burroughs, Wellcome & Cc.
Christy, T., & Co.
Darton, F., & Co.,
Fordham, W. B., & Sens, Lim.
Howards & Sons (Ohemica...
Kent, G. B., & Sons
Tyrer, T., & Co.
White, Alfred, & Sons
Zimmerman & Co.

PILL MACHINES Pindar, J. W. Toogood, W. (Coater) Werner & Pfleiderer

PILLS (Coated, &c.)
Allen & Hanburys
Anderston Apothecaries' Habi
Beecham, Thomas
Biyton, Astiey & Oc.
Bromley, C. (Gout & Rheu.)
Burgess, E., Inn.
Carter's Little Liver Pills
Cox, Arthur H., & Oc. (Leatie)
Dr. Wilnams Medicine Co.
Duncan, Flocknert & Uc
Evans, Sons & Oc.
Hearon, Squire & Franels
Hill, A. S., &Son
Holloway's
Lloyd, T. Howard, & Oc.
Lorimer & Co.
McKesson & Robbins
Newbery, F., & Sons
Parke, Davis & Co.
Fitch & Sacker
Bichardson, J., & Oc., Lim.
Wand, S. (Pearl Coated)
Warner, W. R., & Co.(Coated)
Wyeth J., & Bro. PILLS (Coated, &c.)

PLASTERS De St. Dalmas, A.
Evans, Sons & Co.
Johnson & Johnsor, Lim.
Leslles, Lim.
Mather, W., Lim.
Beabury & Johnson Bradley & Bourdas (Albatum)
Ohancellor & Co.
Fordham. W. B., & Sons, Lim.
Lubezynski, R. & A.
Oakey, John, & Sons

PORCELAIN GDS
Toogood (H.o. Pots, regist.) POULTRY FOOD
Spratt's Patent, Lim.

France Lists
Frans, Sons & Co.
Fallowfield
Holgkineon, Prestons & King
Maw, S., Son & Thompsou
May, Roberts & Co.
Newbery, F., & Sons
Sanger & Sons

PRINTING

Bowers Bros. (Inset)
Oorsan, J. R. (Glass)
Ford, Shapland & Co.
Silverlook, H.
Taylor Bros.
Townsand, J. Townsend, J.

Stern, G. & G.
QUININE SALTS
Boshringer, C. F., & Sohns
Howards & Sons
Simmermann, A. & M.
RENNET

Duncan, Flockhart & Co.

RUBBER GOODS

Glover & Sons

Maw, S., Son & Thompson
Vistoria Rubber Co.

Wood. Vinnant

Wood, Vincent

ACCHARIN

Allea & Hanburys
Burroughs, Wellsome & Ce,

SALICIN

Massarlan & Co,
Smith T. & H., & Co.

SALICYLIC ACID

Burgoyne, Burbidges & Co,
Zimmermann. A. & M.

SARSAPARILLA

Wilkinson's

Wilkinson's
SAUCES, PICKLES
Goodall, Backhouse & Co.
Mason, G., & Co., Lim.
Tyrer. P.
SCIENTIFIC
INSTRUMENTS
Darton & Co.
SEEDS

Potter & Clarke Surrey Packing Co.

Central School of Chemistry
City School of Chemistry and
Pharmacy, Lim.
Liverpool School of Pharmacy
London Homeopathic and
Medical School
Manchester Col. of Pharmacy
Metropoliten Coll. of Pharmacy
Metropoliten Coll. of Pharmacy
Northern School of Pharmacy
Royal (Dick) Veteriuary Coll.
School of Pharmacy
Scheffield College of Pharmacy
South London School of
Pharmacy, Lim.
The School of Pharmacy
Weetminster College
SEIDLITZ PWDRS

The School of Pharmary
Westminster College
SEIDLITZ PWDRS
Blyton, Astley & Co.
Hora & Co.
BELTZOGENES
Brathy & Hinchliffe, Lim,
Evans, Sons & Co.
Geraut, E., & Co.
May, Roberte & Co.
May, Roberte & Co.
SHAVING
Hovenden & Sons (Euxesla)
Llovd, Mrs. A. S. (Euxesla)
Llovd, Mrs. A. S. (Euxesla)
Tombineon & Hsyward [Lim,
Wandeworth Chemical Works,
SHOP FITTERS
Bowling & Govier
Bygrave, J. & W.
Evans, Sons & Co.
Howlett, S.
Josephi, P.
Natali & Co.
SOAP

Natali & Co.

SOAP

Ayrton & Saunders
Barclay & Sone, Lim.
Blondeau et Cie. (Vinolia)
Bronnley, H., & Co.
Cook, E., & Co.
Evane, Sons & Co.
Fordham, W. B., & Sons, Lim.
Gibbs, D. & W.
Jeyes' Sanitary Compounds Co
Minhlens, F.
Peare, A. & F., Lim.
Tidman & Son
Wright, Layman'& Umney

SPECTACLES
Botwright & Grey
Darton, F., & Co.
SPONGES SOAP

BPONGES
Cresewell Broe. & Schmits
Evans, Sons & Co.
Peterson, M., & Co.

STAMPS (RUBBER) Hickisson, J.

STARCH Ohancellor & Co. (Mack's Critchley (Gloss) (Double)

Oritoniey (Gross)
STOPPERS
Austin & Co. (Sprinklers)
Barnett & Foster | Wellin, C.
Stipendum Stopper Co., Lim.

STOVES Clark, S., & Co., Lim.

Clark, S., & Co., Lim.

SUGAR

Blyton, Actley & Co.
Fletcher, Fletcher& Stevenson
Gloson, R., & Sons

SUGAR OF MILK

Boehm, Fredk.

Burrougbs, Wellcome & Co.
May & Baker, Lim.

SURGICAL

Ayrton & Saunders

Bailey, W. H., & Son

Barcley & Sons, Lim.

Cocking, J. T.

Ecohmann Bros. & Walsh
Glover & Son

Haywood, J. H.

Krohne & Sesemann

Lindner & Co.

Liverpool Patent Lint Co.
Macfarlan, J. F., & Co.
Mather, W. Lim.

Maw, S., Son & Thompson

Powell & Barstow
Quelch, H. C.

Lichardson, John, & Co. Lim.

Robinson & Sons

Schntze, F., & Co.

Victoria Bubber Co,
Wood, Vincent

SYPHONS

Barnett & Foeter

Bratby & Hinchliffs, Lim.

BYPHONS

Barnett & Foeter
Bratby & Hinchliffs, Lim.
Fordham, W. B., & Sons, Lim.
Idris & Co., Lim.
Kilner Bros. | Melin, C.
SYRUPS
Blyton, Astley & Go.
Fietcher, Flatcher & Stevenson
Idris & Co., Lim. [Liqnors)
TABLETS
Blyton, Astley & Co.(Sulphur)
Corsan, J. B. (Advertisins)
Bichardson, J., & Co., Lim.
(Compressed,

TEA
Gt. Tower St. Tea Co
Horniman, W. H. & F.J., & Co.,
Pearse & Meeking [Lim.]

Champion & Co., Lim.
Pott, R. & N.

Pott, R. & N.

IN NO LIA (Superftt'd)

Blondeau & Cie.

TEXTHING PADS

THERMOMETERS Bailey, W. H., & Son Barolay & Sons, Lim. Darton, F., & Co.

TINCTURES Bieber, J. D. Byans, Sone & Co. Hewlett. C. J.. & Son Parke, Davis & Co.

TINS & CANISTES Gilbert, J. A., & Co. TOBACCO & CIGRS Singleton & Cole (Lim.)

TOILET Acpinail, E.
Allen & Hanburys (Chrisma)
British Paper Jo.
Burroughs, Wellcome & Co.
(Lanoline)
Dee Cill Co., Lim.
Hovenden & Sons
Queloh, H. C.
Truefitt, H. P., Lim.

Beecham, T.
Jewebury & Brown
Sntton, O., & Co. (Blosk)
Wilson, A. (Bunter's)
Woode, M. (Areca)

TRADE MARKS
Browne, T. B.
Trade Mark Society, Lim.

TRUSSES
Bailey, W. H., & Son
Evane, Sons & Co.
Haywood, J. H. | Wood, V.

URETHANE Howards & Sons Vaccine Association (Lymph)

VACCINATION
Vaccine Association (Lymph)

Vaccine Association (Lymph)
VALUERS &
TRNSFR AGNTS
Andros & Oo.
Berdos & Oo. | Brett, F. J.
Orocker, G. B., & Oo.
Orridge & Oo.
Tomlinson, Thos., & Son
VASELITY
Chassbrough (o

Chesebrough Co. VINEGAR. Champion & Co., Lim. Pott, R. & N.

VETERINARY Bird & Storey | Day & See Day, Son & Hewitt Elliman, Sons & Go. James, W. H. (Blisters) Jeyes Sanitary Compound for. Lloyd, T. Howard, & Co. Bookledge, F. E. Byratt's (Dogs) Walkers, Troke & Co.

WEED KILLERS Acme Chemical Co., Lim. Smith, Mark, Lim.

Acme Chemical Co., Lim.
Smith, Mark, Lim.

WHOISL & MAPRY
Alien & Hanburys
Alien, Stafford, & Sons
Baies Bros.
Barron, Harveys & Co.
Burgoyne, Burbidges & Ce,
Bush, W. J., & Co.
Demarchi Farodi & Co.
Evans, Sons & Co.
Evans, Lescher & Webb
Faseett & Johnson
Ferris & Co.
Fox, W., & Sons | Graf, 7
Goodall, Backhonse & Co.
Harker, Stagg & Morgan
Hesron, Squire & Francis
Hewlett & Son
Hill, A. S., & Son
Hill, A. S., & Son
Hodgkinson, Prestons & King
Hodgkinson, Prestons & King
Hodgkinson, Traccher
Kemp, Wm., & Son
Lloyd, T. Howard, & Co.
Lothonse & Saltmer
Macfarlan, J. F., & Co.
Potter & Clarke
Prosser, Taylor & Co.
Raimes & Co.
Kichardson, J., & Co., Lim.
Symes & Co.
Walkers, Troks & Co.
Walkers, Troks & Co.
Warren, A. & J.
Willows, Francie & Bntler
Woolley, Jae., Sons & Co.
Wright, Layman & Umney
WIMES, SPIRITS
Armbrecht, Nelson&Co. (Coce)

Wright, Layman & Umney
WINES, SPIRITS
Armbrecht, Nelson&Co. (Ocea)
Burrongh, J.
Coleman & Co., Lim.
Durrant & Co.
French Hyglenic Soev. (Coea)
Glendenning, W., & Sons
Goodall, Backhouse & O.:
Hirst, Brooke & Hirst, Lim.
Idris & Co., Lim.
Millar, A., & Co. (Orange)
Eobinson, B.
Smith, S., & Co. (Oranga)



Recent Letter re The New Bronchial Troche,

FROG IN YOUR THROAT.

From a CROYDON CHEMIST.

North End, Croydon.

Dear Sir,

It will no doubt be gratifying to you to know that the very striking show of "Frog in your Throat" which you made in my window has in every way carried out your predictions, producing results which quite outstrip my most sarguine expectations. The immediate result of the show has been to create a great talk in the town, and to attract quite a large number of people to my shop, thereby, I am perfectly willing to admit, acting as an improving influence on business generally; indeed, I may go so far as to tell you that my takings during the first week of the

"Frog" show were £33 above my weekly average for the last twelve months, the increase being chiefly attributable to the attraction of the display.

From the time the display was made there has been around the radow, almost continuously, a crowd of highly interested people. No doubt, however, the actual sales of the Lozenge will be the criterion by which a show will be judged from your point of view. Well, I need say nothing further than this: since you made the window show, I have been selling "Frog in your Throat" at the rate of fifty boxes a day. To J. E. GARRATT, Yours very truly,

c/o BARCLAY & SONS (Lim.)

D. P. ROBERTS.

N.B.-Mr. Roberts has since written to say that the second week's results even exceeded the first, 101 boxes selling on the Saturday alone, and the general takings exceeding by £59 the corresponding week last year.

NO CUTTING. ALL SOLD AT FULL PRICE.

Money talks. The above shows what we mean by claiming reciprocity as the basis of our advertising scheme. You handle our goods and our scheme will sell them, and will sell your own too.

For full particulars write to Sole British Depot:

BARCLAY & SONS, LIMITED, 95 FARRINGDON STREET, E.C.

The Spring Trade, AND HOW * *



HAT it is well to take specific simple medicines at specific seasons of the year is the cherished opinion of the English-speaking race. This is good for the Drug Trade, and some other trades also, apparently. We wish to call attention to the preparations now being made for the Spring Trade in Effervescing goods—Citrate of Magnesia, Saline, Sherbet or Lemon Rali, Sciolitz Powders, and Seltzogene Powders, all of which we make from PURE ENGLISH CHEMICALS.

May we submit, without any charge of dictation being made against us, that the staple trade in these goods has—particularly in large towns—been diverted into other channels, the reason being, we take it, not far to seek. Upon entering any Modern Grocery establishment about the Spring-time of the year, customers are confronted unmistakably with the fact that Effervescing goods of all descriptions may be obtained there—they are on view. Many Chemists we know (speaking for the moment not so much from our business knowledge as from personal observation) buy, say a dozen, or maybe two dozen, bottles of Citrate of Magnesia and Saline at the commencement of the season, and relegate them to a glass-doored case, very often altogether out of view of the visitors to the shop. It is quite true they "fill up," and are there if required. And this brings us to our point. We would like to make a suggestion: it can do no harm—on the contrary, we know it has immensely stimulated trade with some Chemists who have adopted it. So long as the business of a Pharmacist remains as it is to-day—half a profession and half a trade—the Chemist is justified in using every legitimate means to develop either or both branches of his calling.

Instead, therefore, of the one dozen bottles afore-mentioned, relegated to the glass-doored case, substitute a gross—or more if need be—and make a show. Let the customers see you have got what they want (if they don't want it when they come in, they will want it when they see it) and have no need to go to the Grocer for it.

The only difference in the two cases will be—you will have to hand the bottles much oftener to your customers, and much oftener put the corresponding sixpences or shillings into the coffer; you will be able to buy much cheaper; your shop will be much busier; and you will be much more satisfied with the state of things generally.

A brief statement of facts to illustrate the suggestion. A Chemist, known to the writer, during a keen frost conceived the idea that the town in which he plied his vocation wanted thermometers. He accordingly obtained a supply—a good supply; not to be put in the glass-doored case to "fill up" and be there if wanted, but to go into the window, to be on view, and to be sold. The town passed by the window, saw the display, and wondered however it had got on without thermometers before; the town knew it was cold, but how cold it didn't know. Said one item of the town to another item—"Mr. Smartman has some capital thermometers, cheap, and they act well; I've put one in every room in the house—sixpence a room." Here was a go! There had been frosts before, and keen ones too; but the folks hadn't wanted to know how cold it was, and folks hadn't bought thermometers; all they knew now was that they wanted thermometers now, and must have 'em; and in the short space of five weeks Mr. Smartman had sold between cleven and twelve gross, to the satisfaction of himself and the town that had never known how cold it was but wanted to know now.

PROBLEM.—How many thermometers would Mr. Smartman have sold if he had bought one dozen and put them in the glass-doored case to "fill up" and be there if wanted?

BLYTON, ASTLEY & CO.,

T. B. BLYTON, Ph. Chemist. F. A

F. A. ASTLEY, Ph. Chemist.

EAGLE LABORATORIES, MANCHESTER.

New Telephone, 1159.

Telegrams-"TROCHES MANCHESTER."

[See facing page.]

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CITRATE OF MAGNESIA.

Mark	A. Special	Quality	·				Good Quality	•••		•••	Per lb. 10d.
22		"					Recommended	•••	•••	•••	8d.
	Special quotatio	ns for any	of the al			t., 10 cwt., up 6d. an	1 ton lots, and in 1 lb. bottles bottles.	, corked	and	sealed.	

EFFERVESCING SALINE.

We confidently ask Chemists to try this article. The proportion of Fruit Acids is nicely balanced and controlled by mildly acting correctives, aperients, and antacids, which afford a simple means of gently regulating the action of the Liver. In the process of making, great care is taken to retain the sedative properties of the Carbonic Acid Gas, and the Saline, taken as indicated upon the label, gently removes effete and morbid matter from the system. It is invaluable after eating or drinking to excess, being cooling and exhilarating in its action.



IN WHITE AND GREEN GLASS BOTTLES.

Per Dozen.

6-oz. Bottles 3/6 12-oz. Bottles 7/-

Special Quality. 4/6 and 9/-

Per Gross.

6-oz. Bottles 39/-

12-oz. Bottles 81/-

Special Quality.

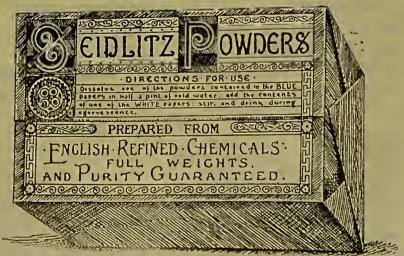
6-oz. Bottles 51/-

12-oz. Bottles 105/-

SEIDLITZ POWDERS.

These Powders are prepared from English Refined Chemicals, and are full weight, each Powder being weighed, not measured. The boxes used are of the best quality, being covered with white glazed enamelled paper, with Cambridge blue edges, the whole being got up and finished in the best style.

1 doz. Boxes, 6/6 per doz. 6 doz. Boxes, 6/- per doz. Loose, 5/6 per gross.



SELTZOGENE POWDERS (ENGLISH CHEMICALS).

IN BOXES HOLDING ONE DOZEN POWDERS.

3 pint Size, 15/- per dozen Boxes.

[See facing page.]

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MOUTH WASH

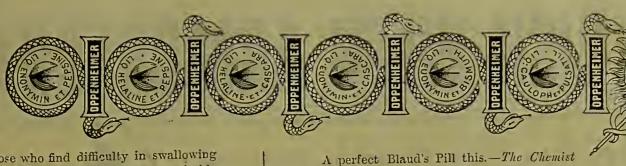
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NUDA VERITAS HAIR RESTORER
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PINAUD'S PERFUMERY, and all other preparations
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ROBERT FRERES' PERFUMERY
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SCHWARZLOSE'S HAIR DYE | SKINHEAL
VOODG'S RAZORS, SCISSORS, and all other articles



To those who find difficulty in swallowing Pills, "Palatinoids" must prove a veritable boon.—The Lancet.

"PALATINOIDS"

(By Royal Letters Patent).

PALATINOID

PALATINOID



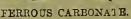


"BI-PALATINOIDS"

(By Royal Letters Patent).
BI-PALATINOID BI-PALATINOID



and Druggist.





DISCOUNTS TO RETAIL CHEMISTS.

Liquors						•••	List net price.
" 56 lbs. at					•••	•••	5 per cent.
Cream of Malt, pla	in and pr	eparations	s, small	•••	•••	•••	26/- per doz.
"	,,	,,	large	•••	•••	•••	48/- ,,
Palatinoids		•••		•••		•••	10 per cent.
Bi-Palatinoids	•••	•••	•••	•••	•••	•••	10 ,,
Portable Medicine			•••	•••	•••	•••	List net price.
Sundry Pharmaceu	tical Pre	parations	•••	•••	•••	•••	22
Fine Drugs and Ch	nemicals	•••	•••	•••	•••	•••	17 17

With orders amounting to £20 or more we supply a handsome mahogany case, for the nvenient and elegant display of our preparations. The case is a desirable addition to any Chemist's stablishment. Write for full particulars.

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Every physician has one or more prescriptions which he wishes to be administered in the most sirable form. We are prepared to execute orders promptly for "Palatinoids" manufactured according formulæ submitted to us. The most careful supervision over every detail of manufacture in is department is exercised just as in the manufacture of products bearing our label.

All correspondence relative to these special preparations is considered confidential, and the formulæ bmitted either for quotation or manufacture are regarded as strictly the property of the person ldressing us. Our patrons can rely upon the stringent protection of their formulæ entrusted to us.

We absolutely guarantee the quality of all products manufactured in our laboratories, and on is basis solicit your patronage. We invite correspondence with Chemists on any matters pertaining our operations, and will gladly furnish ample samples of Palatinoids, Bi-Palatinoids, Liquors, and Cream of Malt Preparations, upon request.

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NO RISK WITH ARMBRECHT

Six dozen Coca Wine (carriage paid), with Show Card, Handbills, &c., will be supplied on receipt of cheque for

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with a guarantee to take back all unopened cases at the expiration of twelve months.

The doctors and clergy in the town will be canvassed by circular, with the Chemist's name printed in

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Pamphlets,
and one copy of
pictures of London,
will be sent with each
dozen.



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MODERN PHARMACY.

MARCH 17th]

SULPHONAL.

From a very extensive use of Sulphonal In private and hospital practice, covering cases of insanity (mania and



meiancholia), delirium tremens, morphine habit, sleeplessness from mitrai insufficiency, from malarial poisoning, from anæmia, and in Bright's disease, the following conclusions have been arrived at:-

(1) it is a safe hypnotic of remarkable intrinsic value, especially in cases of insanity. in all cases reported, refreshing slumber of from two to eight hours' duration was produced by 15 grains, dry or in hot soup, repeated in one hour if necessary.

(2) It is effective in cases where bromides, chioral, paraldehyde, and hypnone have been tried in vain.

(3) It has a secondary effect—i.e., its calmative power seems to extend over one day and exerts a modified hypnotic influence the second night after Its exhibition.

(4) Its advantages over other hypnotic remedies are that it does not constipate as do the preparations of opium; sleep seems to more closely resemble natural sleep than that produced by any other drug; having neither taste nor odour, it is easily given in cases where patients have a natural objection to taking medicines.

Sulphonal supplied to the Trade at 1/6 per oz. Also "Tabloid" form at 8/6 and 24/- per dozen bottles.

HAZELINE.

Hazeline is a clear, transparent, watery liquid, of pleasant fragrance, and slightly sweet, astringent taste. It is prepared from the fresh green twigs of the plant Hamamelis or Witch Hazel, and contains all its valuable volatile principles. It will not stain or discolour linen, and is absolutely free from poisonous or irritative principle of any kind. Hazeline is anodyne, sedative, cooling, antiseptic, styptic, and hæmostatic. For bruises, burns, contusions, abrasions, sprains strains, wounds, Inflammation, soreness, and lameness it is said to avert complications and afford relief from pain. It is used extensively for the treatment of sores and varicose veins.

As a household remedy for the relief of pain, rheumatism, cold, and slight aliments generally, Hamamells is facile princeps. A little of it snuffed into the nostrils relieves catarrh and quickly breaks up a cold in the head.

in inflammation of the eye, with pain, dread of light, redness, and a discharge, if diluted with an equal part of water and poured constantly on a piece of Lawton's Cotton laid over the part, it is very grateful indeed.

One of its most important uses is in burns, scalds, the painful burning of erysipelas and of acute attacks of eczema, the burning of chilblains, prickly heat, poisonous bites, and inflammations caused by Irritating chemicals. Many cases have been recorded of the instantaneous relief which it affords in cases of bad burns, and it is said never to fail if the burns be covered with Lawton's Absorb ent Cotton kept constantly moist with it.

Hamamells often assuages the pain of toothache and facial neuralgia if some of it be held in the mouth, and gives great comfort in spongy gums and sore mouth. in sore throat, quinsy, acute bronchitis, and congestion and inflammation of the lungs steam inhalations of Hamamells ease the sufferer immensely.

Perhaps the greatest value of Hamamelis lies in its remediai action on hæmorrhoids. It has long been known as an effective remedy for this affection, and some have pronounced it a specific. It is quite certain to mitigate the pain of either external or internal piles which are of an inflammatory or irritable nature; a mechanical cause of plies Hamamelis cannot, of course, remove. In anal fissures, cracks, and ulcerations It is palliative and works well-

it has been prescribed very extensively for hæmorrhages from the respiratory and other tracts.

Hazeline supplied to the Trade in $\frac{1}{4}$ ·ib. and 1·lb. bottles at 14/- and 42/- per dozen.

DIURETIN-KNOLL.

ACTION AND USES.—Theobromine is nearly allied to Caffeine, the latter, considered chemically, being try-methul xanthine, whereas Theobromine is di-methyt xanthine. feine causes at first stimulation and subsequently paralysis of the nerve centres in cerebrum, cord, and medulia" (BRUNTON). This effect with Diuretin is not observed: its action appears to be that of a simple and powerful diuretic, which is due to the direct influence it exerts upon the secreting parenchyma of the kidneys.

"Under the direction of Dr. DUJARDIN BEAUMETZ further observations have been made by Dr. K. POMERANTZ, which in the main confirm the statements made by the originator, Dr. CHRISTIAN GRAM:-1. in doses of 15 grs. every two or three hours it is a much stronger diuretic than Caffeine. 2. It should not be employed in cardiac degeneration when albuminuria is present. 3. The force of the cardiac contractions is scarcely affected. 4. Diuretin rapidly increases the quantity of urine passed, and the diuretic effect lasts twice or three times as long as with Caffeine. 5. The activity does not decrease as the patient gets accustomed to the drug. 6. Micturition is not difficult or painful. 7. Diuretin exerts no action upon the central nervous system."-The Lancet October 18th, 1890.

Dr. KORITSCHONER confirms the foregoing, and says:-"Diuretin rarely causes nausea, even in chronic Bright's disease; when the appetite is gone, and food cannot be tolerated, it proves to be a very powerful diuretic."— Internat. Jour. Med. Sciences, December, 1890.

"It may cause diuresis where Digitalis, Strophanthus, Caffeine, &c., have failed."-Lond. Med. Rec., January, 1891.

"Volume of urine much increased, quantity of albumen voided reduced."--Ibid., March, 1891.

"in acute nephritis there is increased diuresis and disappearance of cedema after ingestion of Diuretin."-Brit. Med. Jour., June 6th, 1891.

PREPARATIONS.—It is not desirable to prescribe Diuretin as powder, as through the absorption of carbonic acid from the air, a part of the theobromine is soon displaced from the sodium combination and becomes insoluble.

The most convenient as well as the most reliable form of the drug is in "Tabloids," 5 grs. in each: "Tabloidi Diuretini, 5 grs." The "Tabloids" readily dissolve in a little warm water, and, given in this manner, the diuretic action is facilitated.

The daily dose of Diuretin is 90 to 120 grs. The single dose about 15 grs.

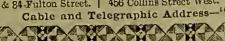
Supplied to the Trade in 1.oz. and 2.oz. bottles, at 4.4 per "Tabloids" of Diuretin Knoll, 5 grs., in bottles of 25 and 100, at 30/- and 84/- per dozen.

GO., BURROUGHS, WELLCOME & U., PARIS: BRUSSELS: LONDON: NEW YORK: MELBOURNE: 456 Collins Street West. Pharmad Centrale de France. E0 Montagne-de-la-Cour. Snow Hill Buildings. Cable and Telegraphic Address—"BURCOME LONDON."

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CHEMISTS.







MOMENT



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THE QUESTION PUT IS:-

What are the best things to stock during the Photographic Season

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White Rose, White Lilac, White Heliotrope, Lily of the Valley, Clove Pink. Perfumes of English Manufacture Shipped in Bond. Special quotations for large quantities.

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TO DATE:

AWARDS COLD MEDALS—ANTWERP, COLOGNE, AMSTERDAM, BRUSSELS, THE HAGUE, DUBLIN, &c.

Diploma d'Honneur, Rosendael, 1891. Diploma Royal Naval Exhibition, 1891.

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KING OF NATURAL TABLE WATERS. Charged Entirely with its own Natural Gas. PREVENTS GOUT, RHEUMATISM, AND INDIGESTION.

Mixes equally well with Wines, Spirits, or Milk. Supplied at all First-Class Hotels, Clubs, and Restaurants.

The finest tribute ever accorded to sterling merit is contained in The Lancet of August 8, 1891, pages 307-8, which embodies the "Report of The Lancet Special Commission on Natural Mineral Waters," "Johannis"—the subject of the Report—being selected from amongst the Natural Mineral Waters of the world as worthy of this distinction.

Ohannis" SPECIALTY.

THE "QUARTER" BOTTLE, 25s. per 100, Delivered London. Unique for Diluting Wines, Spirits, and Milk. Samples delivered free to the Medical Profession.

. To be obtained from all Chemists, Wine Merchants, and Stores at the following prices per dozen delivered:-BOTTLES 1-BOTTLES 1-BOTTLES 6/- 4/6 1 3/6. Country 6/6 .

Address—THE JOHANNIS COMPANY, LIMITED, 25 REGENT ST., LONDON, S.W.

The Chemist & Druggist SUPPLEMENT.

Businesses Wanted Businesses for Disposal Premises to Let Auction Sales

SATURDAY, MARCH 10, 1894.

Partnerships Situations Vacant Situations Wanted

A Copy of this Supplement is inserted in every number issued of "The Chemist and Druggist."

CHEMISTS' TRANSFERS. CO., 32 LUDGATE HILL, E.C. ORRIDGE & MESSRS.

CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. Orringe & Oo. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PUROHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

eligible opportunities for entering business will greatly facilitate their object 1.—£850.—LONDON, S.W.—Very old-established Business; at present under management; select good-class Dispeusing and Retail; returns £850; the premises are in good repair; shop roomy, well fitted, and good stock; about one year's purchase is required; full particulars on application.

2.—£1,350.—LONDON, E.C.—Ready-money Business; capital position for pushing business; returns £1,350; the shop is handsomely fitted and well stocked; the business admits of considerable extension; price about one year's purchase.

3.—£1,000.—LONDON, W.—Dispensing, Retail, and Prescribing; returns £1,00 yearly; very profitable business; situate in a middle-class locality; good-sized house, with garden; an early sale is desired; price about £550.

4.—£1,300.—LONDON, N.—Very well-fitted shop; situate in a good

4.£1,300.—LONDON, N.—Very well-fitted shop; situate in a good middle-class locality; Dispensing and Retail, with Mineral-water trade; returns £1,300 yearly; profits very good; above the average; vendor retiring from business will accept a reasonable offer to effect an early salc—say about £900 or £1,000.

5.—£500.—LONDON, S.—Very old-established business, held by the vendor for about 40 years; the shop is handsomely fitted, and well stocked; the reputation of the Pharmacy is first class; present returns about £500; confortable house and garden; about £500 required (or offer); reference to the best authorities if required.

6. £650.—LONDON N.W.—Dispensing and Retail a very good electric forms.

6. £650.—LONDON, N.W.—Dispensing and Retail; very good class; situate in a main road; returns £650; profits very good; handsome shop, and very good lonse; the fullest investigation is courted; a reasonable sum will be reported.

Will be accepted.
7.—£1,000.—LONDON, W.—Store Business for disposal; owner not qualified; good opportunity for a gentleman prepared to enter on a pushing trade; there is a good Dispossing business done; returns between £900 and £1,000; very well fitted shop and good stock; may be purchased for less than the value of stock and fixtures.

by describing clearly the class of connection they wish to obtain.

8.—£1,000.—SOUTHERN HEALTH RESORT.—Retail and Dispensing Business for immediate disposal; returns £1,000 yearly, including Photographic Business, which can be removed if wished. To a gentleman prepared to give his whole time, a remnnerative business can be acquired; small capital only required.

9.—£400.—BUCKS.—No opposition; in a rural district; very oldestablished Business; returns between £300 and £400 yearly, very profitable; the house is a good one, with large and well-stocked garden; the situation is within easy run from town; about £200 required.

10.—£1,000.—SOUTHERN COUNTY.—No opposition.—Retail and Dispensing Business, with some Stationery; returns between £900 and £1,000 yearly; all good profitable business; the locality is pretty and attractive; good house, with garden; price about £700.

11.—£500.—SOMERSET.—Dispensing and Retail Business; returns £500 yearly, easily increased by personal attention; the present owner is unable to devote his whole time to the business; vendor will assist the purchaser, as he is not leaving the locality; worth the attention of a young man prepared with about £250.

12.—£3,000.—HOME COUNTY.—Good-class Dispensing and Retail, with some Wholesale; the returns amount to £3,000 yearly, with good profit; the situation of the business is commanding, and the residence convenient the purchase-money required is about £1,800.

13.—£1,200.—WESTERN COUNTY.—Agricultural business with Dispensing and Retail, embracing some capital proprietary articles of good.

the purchase money required is about £1,800.

13.—£1,200.—WESTERN COUNTY.—Agricultural business with Dispensing and Retail, embracing some capital proprietary articles of good repute; the returns amount to £1,200 yearly; good house and business premises; about £700 required; full investigation permitted.

14.—£3,000.—WHOLESALE.—Mixed trade, including Oils and Colours; no Retail; present returns, £3,000 yearly; the introduction of more select drug and surgeons' business would materially increase the business without additional working expenses; valuation of stock and fixtures only required, about £1,800.

Particulars of any of the above will be furnished on application. TO PURCHASERS. N.B.-NO CHARGE

Personal applicants receive Messrs. O. & Co.'s direct attention and Other Businesses, Town and Conntry. Particulars free on application.

Other Businesses, Town and Country. Particulars free on application. Personal applicants receive messis. O. C. Cots direct descriptions advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. Orribge & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London Agent.

SPECIAL NOTICE.—Messrs. ORRIDGE & CO. have a large number of Businesses for Sale, suitable for Gentlemen with Small Capital, from £200 to £500.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

PARTNERSHIPS.

3s. 6d. for 50 words; 6d. for every 10 words beyond.

WANTED, competent (certificated) Man to invest capital with view to Partnership or succession; good business in Midland town; polite and good salesman, able thoroughly manage and purchase in best market. Apply, stating capital at command, experience, and references, to 12/14, Office of The Ohemist and Druggist, 42 Cannon Street, E.C.

ADVERTISER, having a Business in main street of fashionable seaside health resort (Lancs), desires amalgamation with Limited Company; the town is rapidly developing, and conversion into a business conducted on close profit cash lines cannot fail to prove a big success; premises convenient and spacious. 12/27, Office of THE CHEMIST AND DRUGGIST, 42 Ornnon Street, E.O.

WANTED. BUSINESSES

£5 BONUS will be given to the one giving best opening for Chemist's Business in good-class healthy locality; moderate rent. "Iorlol," Office of The Chemist and Druggist, 42 Cannon Street, E.O.

WANTED, a high-class Retail and Dispensing Business realising a net profit of about £500 a year; good house essential; no agents; prompt each paid for a suitable concern. C. T., c/o Messrs. Hill & Son, 101 Southwark Street, S.E.

WANTED, a good or medium class Business in the West of England (Somerset or Gloncestershire preferred) returning about £500 or £600 yearly; will be at liberty in a month. Address, "Bona Fide," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

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£4,000 returns.—MIDLANDS.—General Retail and Wholesale; net profit £700; price about £1,800

 $\begin{tabular}{ll} \bf YORKSHIRE.- Retail in busy town; small opposition; valuation about £600. \end{tabular}$

£1,200.—SOUTH.—Country Retail, with Agricultural trade; house ir; rent £30; price £700.

HANTS.—£470 returns; Light Retail; rent £25; price £350.

CHEMISTS' TRANSFER AGENTS AND VALUERS,

JEWRY STREET, ALDGATE, E.C. Established 1870.

NOTICE TO VENDORS.

Having been for the past 23 years solely engaged in the Sale, Purchase, and Valuation of Ohemists' Businesses, we have, as Transfer Agents and Valuers, the largest experience of any in the Trade. Vendons placing their businesses in our hands for transfer may in all cases rely upon a speedy sale being effected without undue publicity. Terms forwarded post free on application. No sale, no charge.

BUSINESSES WANTED.

NO CHARGE TO PURCHASERS.

1.—SOUTH COAST.—Fashionable resort; good-class Retail and Dispensing Business; returns £650; net profit, £320; shop is well fitted and heavily stocked; price £600.

2.—ESSEX.—Market town; Retail, Dispensing, and Agricultural Business; returns £1,000, net profit 40 per cent. after paying expenses; good house and garden; price £750, or offer.

3.—MIDLAND COUNTY.—Strictly reliable first-class Light Retail and Dispensing Business; returns £1,650, with profits above the average; price £1,450; personally inspected and recommended.

price £1,450; personally inspected and recommended.

4.—SOUTH OF ENGLAND.—Light Retail and Dispensing Business; returns £1,100; double-fronted shop, handsomely fitted, well stocked; good house; price £600; month's trial allowed.

5.—LONDON, N.—Same hands 18 years; Retail and Dispensing Business (over 7,070 prescriptions yearly); returns £800, net profit £300; good house and garden; price £750, or offer.

6.—CRYSTAL PALACE DISTRICT.—Retail and Dispensing Business; returns £600, net profit over £200; handsomely fitted and well stocked; good house and garden; price £560, or offer.

7.—LONDON, S.E.—Through illness, and must be sold; corner Retail and Prescribing Business; unopposed; returns £5 weekly; low rent; only £75 to effect speedy sale.

Other businesses from £100 to £3,000.

Other businesses from £100 to £3,000.

VALUATIONS.

SPECIAL ATTENTION is paid to valuations, which are personally conducted by a member of the firm, in any part of the United Kingdom. Our terms, which are moderate, may be had on application.

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Inclusive terms to Vendors. No extras whatever. Businesses £1,000 and upwards transferred at special rates.

Messrs. ANDROS & CO. have the following for disposal:-

WEST OF ENGLAND (fol. 986).—Cash, Dispensing, and Prescribing Business; full prices; comfortable house; rent £23; returns £300; net profits £120; price £130.

LONDON, N. (fol. 974).—Death vacancy; Prescribing and General Retail; rent £40; returns £350; price £100.

LANCS. (fol. 976).—Old-established Ohemist's and Scientific Business; population 110,000; rent low; returns £1,100; price £700.

SOUTH COAST (fol. 988).—Old-established (1819) Business; same hand 30 years; good house; rent £65 on lease; price £330.

WILTS (fol. 965).—Old-established Prescribing and Agricultural Business; low rent; returns £1,200; price £800.

HANTS (fol. 951). Dispensing and Prescribing and Agricultural Business; rent £35; teturns £200; price £480.

NO CHARGE TO PURCHASERS.

Mr. WILLIAM JUDD and Mr. ALFRED MANNERS, Trade Valuers, Transfer Agents, and Accountants,

15 WALBROOK, E.C.

Valuations made for Probate or Transfer, Books Audited and Balance Sheets prepared in any part of the United Kingdom.

SURREY (in centre of pleasant little town).—An old-established Family and Dispensing Business, now returning, under a manager, nearly £600; price £350; we strongly recommend this.

WEST OF ENGLAND.—Old-established good-class Family and Dispensing trade; returns £900; price £800.

SOUTH OF ENGLAND.—First-class Dispensing trade; returns £1,250; price £1,200; good honse and handsome Pharmacy.

VALUATIONS A SPECIALTY.
TERMS ON APPLICATION.

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Chemists' Consultants, Transfer Agents, and Valuers,

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Forty-four years' experience, during which period they have transferred, valued, or arbitrated from 800 to 1,000 Businesses.

They have now for disposal at Blackburn, Huddersfield, Bury, Preston, Bristol, Manchester (3), Liverpool (2), Bradford (2), Derby (2), Hebden Bridge, Hyde, Lincolnshire (market town), Oldham (2), Normanton, Accington, Sheffield, Warrington, Bury, Redditch, Goole (2), Suffolk, Scarborough, Devonshire, Southampton, Hollinwood, Horwich, &c., &c.

Please state requirements and capital, when candid opinions as to adaptability will be given without charge.

NO CHARGE TO PURCHASERS. Telegraphio Address--" Tomtom."

BUSINESSES FOR DISPOSAL.

3s. 8d. for 50 words; 8d. for every 10 words beyond.

CHEMIST Family Business for disposal at Brighton; in present proprietor's hands 30 years; now retiring; all at £350. Fox & Taylor, Edenbridge, Kent.

CHEMIST'S Business, in a populous working-class neighbourhood, established 12½ years, to be disposed of for value of stock and fixtures; value about £175. E. Johnson, 44 King Street West, Stockport.

DISPENSING Business with Dentistry; good situation; West of England; returns £900; net profit £400; price £750. "Beta," c/o W. Edwards & Son, 157 Queen Victoria Street, London.

YORKSHIRE.—Light Retail Business; returns about £350; can be largely increased, especially by Tooth-extraction; rent low, private house adjoining; price, valuation. 12/19, Office of THE CHEMIST AND DRUGGIST, 42 Oannon Street, E.C.

£300 or valuation.—Old-established Mixed Business, in good market town in Liucolnshire; in present proprietor's hands 26 years; shop, with plate-glass front, and 7-roomed house; rent £20. Apply, W., Emery House, Boston, Lineolnshire.

£350.—Hants.—Light Retail and Prescribing Business; returns £465, which could be much increased by a qualified man; rent £25; good house, long garden in rear; price £350, or offer. "Hents," Office of The Chemist and Druggist. 42 Cannon Street, E.C.

POR sale, cheap, a genuine Light Retail, Prescribing, and Dispensing Business, with Tooth-extracting; within 50 miles of London; returns over £550 per aumm; large honse, private entrance, small garden; low rent. Apply, "Ajax," 14 Lower Buildings, Walthamstow.

£90 or thereabouts for Stock and Fixtures of Business in good thoroughfare of large town on South Coast; part can remain on approved security; rent, rates and water only £20 a year inclusive. Letters to "Vera," e, o Barclay & Sons, 95 Farringdon Street, E.C.

FOR immediate disposal through ill-health, old-established Retail Drug Business, in the neighbourhood of Bristol; same hands over 30 years; no opposition within 1 mile radius; spleudid opening; capable of great extension; returns between £500 and £600; a bargain to a cash purchaser; no agents dealt with. H. W. G., e/o Messrs, Warren, Bristol.

March 10, 1894 THE CHEMIST AND DRUGGIST SUPPLEMENT

SITUATIONS OPEN-Cont.

AN Assistant; Minor; about 24; hours from 8.30 to 7.30, Saturdays 10; no Sunday duty. Apply, "Manager," Drug Department, 20 High Street, Bath.

MMEDIATELY, Junior (indoors) for first-class Cash business, N.W.; 6 kept Apply, stating fullest particulars, to "Manager," 2 Fitzjohn's Para'le, Finchley Road, N.W.

A SSISTANT wanted, by Murch 16, in a Chemist's in N.E. London; must be qualified and have good reforences; with knowledge of Photography preferred. Address, "Beta," 15 Eton Road, N.W.

ANTED, by a firm of Snrgeous, a Dispenser hetween 23 and 35 years of age; preference given to a qualified Chemist; salary (indoors) 260. Apply, personally, 60 Cambridge Gardens, North Kensington, W.

MMEDIATELY, competent Dispensing Assistant; qualified; indoors; must have had first-class experience. Apply, stating age, salary, and references, to Brady & Martin, Northumberland Road, Newcastle-on-Tyne.

WESTON-SUPER-MARE.—Wanted, a Junior, indoors: must be a quick and accent Dispenser and good Counterman. Apply, with full particulars, and enclosing photo, to E. Norman, Pharmaceutical Chemist, 35 High Street.

MMEDIATELY.—Ontdoor; unqualified Assistant in London Drug Stores, W.; about 25; Prescriber, Dispenser, and good counterman; half-holiday weekly; permanency to active and snitable man; good references essential. Apply, stating all particulars, and salary expected, Messrs Hornden & Sons, Berners Street, W.

WANTED, by the middle of April, by a firm of High-class Chemists, in the neighbourhood of London, a qualified Assistant, about 26, for a Branch, with g od London experience and first-class references; a good salary to a suitable gentleman. Apply, enclosing photo and full particulars, to Y., c o Maw, Aldersgate Street, E.C.

A Tonce, Manager (indoors) for large Drug and Dispensing establishment, W.; 10 Assistants kept; must be single and thorough business man; liberal salary. Apply first instance, stating fullest particulars (none others answered), to H., Messrs. Hodgkinson & Co., 101 Whitecross Street, E.C. Also vacancies for 2 Juniors, about 21.

RANCH.—End of month, Assistant for Light Mixed Retail; qualified; single; indoors (or married to live on premises, unfurnished); good Salesman, energetic, steady and reliable; permanency; no Sunday dnty. To save time give fullest particulars in first letter, saying salary expected, &c., photo (if convenient), to Birkbeck, Chemist, Lincoln.

OUTDOOR Assistant wanted; Minor exam.; not over 35 years of age, for cash trade in the South of England; to a gentleman of ability and energy good opportunities of promotion are offered; liberal salary and commission. Full information on application (stating all usual partuniars) to Janos, co F. Newbery & Sons, 1 King Edward Street, E.O.

WANT 2D, an energetic Assistant, capable of pushing business; must be a good Prescriber, Extractor, and with a knowledge of Photography preferred; married: Minor qualification essential; to take entire management of a small branch; must have unimpeachable references as to sobriety and honesty; salary 42 weekly, house, and gas. Write, "Ag," Holmhurst Honse, Plashet Grove, East Ham, E.

ROYAL SURREY COUNTY HOSPITAL, GUILDFORD.—
Non-resident Dispenser required; must have passed qualifying examinations of the Pharmacentical Society; he will be expected to devote his whole time to the work of the Hospital, dispensing and compounding pharmacentical preparations; salary £90 per aunum; testimonials of practical experience and character will be required. Inties to commence or April 6. Application to be sent to the Secretary, Royal Sarrey Connty Hospital, Guildford, on or before March 20.

SITUATIONS WANTED.

1s. for 12 words; 6d. for every 6 words beyond.

DART-TIME; good Dispenser; aged 22. N. Z., 12 Clayland Road,

OCUM - TENENS; disengaged. "Chemist," 32 Laurel Grove,

JUNIOR; 20; 5 years' experience. Tunstall, c/o Townley, Chemist, Keswick.

AJOR Student. 23, tall, requires part time. "Verus," 69 Lant Street, Borough.

A SSISTANT; 26; steady; where time arranged for study. "Radix," 113 Holborn, E.C.

UNIOR; 21; good-class Dispensing business. E. Sampson, 11 Chapel

PART-TIME. 3 evenings weekly. Stevenette, 19 Richmond Street, St. George's Road, S.E.

WHOLESALE - Wanted, situation in. Apply, "Beta," 34 Low-pavement, Chesterfield.

PART-TIME; evenings disengaged; Chemist or Surgeon. "Chemist," 82 Crowndale Road, N.W.

PART-TIME; long and varied experience. "Quinine," 22 Iffley Road, Hammersmith, W.

JUNIOR: onthoors; immediately; 21; excellent references. W. B., 65 Torrington Square, W.C.

A SSISTANT; good all-round man; Prescriber, Extractor; aged 35. Firkins, Newtown, Malvern.

A SSISTANT; ontdoors; 23; 8 years' experience; references. Stow, Haverholm, Sleaford, Lines.

JUNIOR or Dispenser; 23; unqualified; London; good references, Denton, c/o Rae, Newmarket.

A SSISTANT; town and country; 5 ft. 7 in.; disengaged. J. Phillips. Swansea Road, Pontardulais.

JUNIOR; 21; London, Manchester, or Liverpool; part-time. Poole, 165 Hagley Road, Birmingham.

OCUM-TENENS; aged 28; disengaged; good Extractor. 2 Horton Street, Lewisham, London, S.E.

QUALIFIED; Stores, Branch, Dispenser, or otherwise; experienced; 36. E. Collins, Leake, Boston.

MPROVER: 4 years' experience; reference; photo. Cas. Lane, North End, Henley-on-Thames.

TERMS moderate; Manager or Assistant; qualified; 51; married. 36 Wrexham Fechan, Wrexham.

UNIOR: 21; London experience: London, W., preferred. Williams, 211 Ball's Pond Road, Islington, N.

A SSISTANT or Manager; qualified; aged 26; good references. "Extractor," Orowle, Doncaster.

JUNIOR or Assistant; 25; ontdoors preferred; good references. "Chemist," 19 Oastler Terrace, Leeds.

OCUM-TENENS or Assistant; tall; disengaged 15th. S., 73 High Street, Bromsgrove Worcestershire.

ASSISTANT; 23; experienced; good references; disengaged. George Heagerty, Berwick-on-Tweed.

JUNIOR: 19: 4 years' experience; disengaged March 17. Potts, c o Fairman, The Pharmacy, Sunderland.

WHOLESALE, Wets, drys, or any "Export," 73 Lenthall Road, Dalston. any department; experienced.

JUNIOR; 20; 5 ft. 8 in.; 5 years' experience. W. B., co Mr. Tomlinson, Chemist, Chelmsford, Essex.

ANAGER. Assistant Locum: 23; 8 years' experience; qualified. "Alpha," 117 Choriton Road. Manchester.

ANAGER; London: qualified; disengaged shortly; good references. "Chemist," 30 Matthias Road, N.

EXPERIENCED Locum or Manager; married, no family; 40. Davis, Pearce's, Chemist, Upper Edmonton.

JUNIOR; 22; good-class Dispensing experience; knowledge of Photography. Percy Longley, North Street, Leeds.

ANAGER or Temporary; 20 years' experience; qualified; excellent references; town or country. Guy, 390 Strand.

JUNIOR; 23; good references; tall; 6 years' experience (ontdoor preferred). McKenzie, 127 Bloxwich Road, Willenhall.

AB.; experienced; aged 29; disengaged in a month. "Sci," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ANAGER, Assistant, or Locnm-Teneus; qualified; experienced; aged 37; single. B., 32 Kennington Park Road, S.E.

UNIOR; outdoors: 22½: preference South London: highest references: or three days per week. F., 37 Mount Ash, Sydenham.

A SSISTANT; London and provincial experience; Dispenser and Extractor. Dobson, Wiske Moor, Northallerton, Yorks.

AS Branch Manager; aged 36; qualified; good experience; married; disengaged March 27. E. B., 38 Canwick Road, Lincoln.

ANAGER; view to purchase; qualified; 30; single. 13 13, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.O.

ANAGER or Assistant; qualified; married; aged 40; thoroughly experienced; disengaged. Y. Z., Galgate, Barnard Castle.

QUALIFIED; 22; London and Provincial experience; accustomed to quick business. "Chewist," 13 Waring Street, Loicester.

TRAVELLER for Drugs, Sundries, or Medical Specialities. 272.5, Office of The Chrmst and Druggist, 42 Cannon Street, E.C.

PART-TIME; 21; nearly 5 years' experience; Chapham or Brixton; good reference. J. Holmes, 130 High Street, Notting Hill, W.

CHEMIST'S Assistant (qualified) desires situation in good-business. Address, "Minor," c/o Haigh, 28 Northgate, Halifax.

WHOLESALE.—Wet, Dry, or any capacity: highest references; wages low. "Nux," 33 Alfred Cross Street, Meanwood Street, Leeds

ASSISTANT; 22½; qualified; 6 years' experience; outdoors preferred; London or nice city. Wicks, 8 St. Augustine's Road, Camden Town.

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SITUATIONS WANTED-Cont

AS Traveller, with good connection amongst Chem'sts in town and suburbs; good references. Address, F. A. Oxley, High Street,

CHEMIST'S widow desires position as Housekeeper to Chemist; 1 child. Apply, Bannister, 1 Calderon Terrace, Leyton Road, Stratford.

BOOKKEEPER (Chemists') is open for engagement to Chemist or Medical man, few evenings weekly. W. T., 26 Heron Road, Milkwood Road, S.E.

ANAGER for short time; view snecession; qualified; small capital. 59 36, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

A SSISTANT or Improver: young lady; Ifall qualification; good testimonials. 13 21, Office of The Chemist and Druggist, 42 Cannon Street, E.C.

LADY Dispenser to Surgeon; qualified; good testimonials; terms moderate 10/50, Office of THE CHEMIST AND DRUGGSST, 42 Cannon Street, E.C.

QUALIFIED Assistant or Manager in good-class business; Birmingham preferred; aged 24; 9 years' experience. Baynard, Lyddington, Uppingham.

DISPENSER to Surgeou, Manager, or Senior Assistant; married; 43. G., e/o Mrs. Baverstock, Rockeliffe, Winehester Road, Shirley, Southumpton.

WHOLESALE Wot Counter or Traveller in London house; good. Wholesde experience; highest references. R. B., 21 Denver Road, Amhurst Park; N.

A SSISTANT; 26; height 5 ft. 8 in.; good Extractor and Prescriber; excellent references; reliable; disengaged. C. M., 1 Vine Cottage, Harrington Hill, N.E.

A SSISTANT or Manager; aged 32; height 5 ft. 10½ in.; good Dispenser, Prescriber, and references; over 14 years' experience. "Gamma," Elleubrook, Manchester.

A SSISTANT: 23; good practical experience in Dispensing, Prescribing, and General Retail; 3 years' in present situation. Roberts, 4 High Street, Exoter.

WANTED, situation as Traveller; permanency required; excellent references; do not object to go abroad. Apply, "Azax," 2 Wilson Street, Newark-on-Trent.

JUNIOR: 2); Dispensing and Retail; 5½ years' Store experience: good references. "Phenacetin," Office of The Guerist and Dagger T, 42 Caunon Street, E.C.

MANAGER; outdoors; several years' experience in first-class business; highest references. R. A., Office of The Chemist and Dauggest, 42 Cannon Street, E.C.

WHOLESALE. Putting up Proprietary Articles, Patent Medicines, Sundry Drugs, Powders, &c.; aged 29; good reference. A. H. P., 51 Russell Street, Brixton, S.W.

WHOLESALE.—Chemist with 14 years' experience seeks engagement in Laboratory; good Analyst. 14/4, Office of The Chemist and Druggist, 42 Cinnon Street, E.O.

L OCUM-TENENS or Wanaging Assistant; permanency preferred; 30 years' good and varied experience; good Prescriber and Extractor; married. W. B., 4 Victoria Terrace, Dudley.

LOCUM-TENENS: management or otherwise; now disengaged; aged 27; total abstainer; town and country experience; good references. "Rhei," 79 Vietoria Street, Westminster.

WANTED, engagement as Manager in a sound and reliable business, with view to succession; references given as bona tides. "Chemieus," c/o Wyley & Co., Manufacturing Chemists, Coventry.

MANAGER; qualified; permanent or temporary; 44; 5 ft. 10 in.; abstainer; special all-round experience; knowledge of photography; disengaged. "Chemist," 6 Churchgate, Stockport.

DISPENSERSHIP remirel; good experience in club and highclass private practices; London and provincial; excellent references. 13-8, Office of THE CHEMIST AND DRUGGIST, 42 Caunou Street, E.C.

TRAVELLER, calling upon Physicians and Chemists with speciality, seeks additional engagement; experienced, successful, energetic. 11 29, Office of The Chemist and Druggist, 42 Cannon Street, E.C.

MANAGER or Assistant with view to succession; qualified; aged 38; single; cash ready; extensive experience in London, country, and abroad. Address, E. B., 7 Pepler Road, Old Kent Road, London, S.E.

TRAVELLER.—Centlemen calling upon Wholesale firms and principal Chemists in England, Scotland, is at liberty to take another agency. 826, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TRAVELLER, aged 30, has been calling on Chemists, Mineral-water and Wholesale Cake Manufacturers, England and Ireland, for 3 years, desires re-engagement; good references. "Traveller," Chesnuts, Parkharst Road, Bowes Park.

JUNIOR Assistant; disengaged; good references. L. F., 75 East Hill, Colchester.

LOCUM TENENS; single; disengaged 15th, J. Dnnn, 30 Church Street Camberwell, S.E.

A SSISTANT: qualified; aged 28; good experience; outdoors. A. B., 13 Brunswick Square, W.C.

AS Branch Manager or Locum-Tenens ; registered. "Fideo," Temple News Rooms, Fleet Street, London.

SURGEON'S Dispenser, or Chemist's Assistant; age 35; experienced; disengaged. P. C. S., 68 Brighton Road, N.

OCUM-TENENS or Manager for executors; qualified; long experience. "Chemist," 8 Church Street, Salisbury.

PERFECT Salesman, Stockkeeper, Dispenser: trustworthy, tall; unexceptionable references. Cavendish, 3 City Road.

WHOLESALE; Chemicals, Drugs, &c; town or country; Apothe-earies' Hall 13 years. W. Hendrie, 25 Richmond Road, West Ham, E.

SHORTL r, Branch Management, or with viow to succession, permanency. 89,90, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street E.C.

DISPENSER to Surgeon; experienced; 24; excellent references; London or suburbs. "Dispenser," 24 Tollett Street, Carlton Square, London, E.

A REGISTERED Chemist can take immediate Charge or Part-time; thoroughly experienced. 48/72, Office of The Chemist and Druggist, 42 Cannon Street, E.C.

A SSISTANT London; unqualified; 26; height 5 ft. 9 ins.; outdoor; excellent references; disengagel. "Statim," c/o Mr. A. Cotton, 13 Newmgton Causeway, Boro', S.E.

DISPENSER; tall; gentlemanly address; aged 26; quick and accurate compounder: Irish qualification; excellent testimoniais; London reference. "Quereus," 33 Museum Street, W.C.

TRAVELLER for Wholesale Drug House, with 4 years' connection in West or Engrand, is open for commission which wid not clash with present occupation. W., 23 Harringay Park, Crouch End, N.

SOUTH Africa, Cupe preferred; qualified; 24; used to tropies; 3 years' engagement; varied experience, including Photography; best terms to "Africa," e,o Office of The Chemist Ann Dauggist, 42 Cannon Street, E.C.

WHOL. SALE Drug Trude.—A gentleman of long and varied experience, at present holding an important position, will shortly be open to engagement as Manager or Traveller. Address, 7,13. Office of The Chemistr AND Demograph 42 Cannon Street, E.C.

TRAVELLER, with first-class connection amongst Chemists in the North of England, including Manchester, Liverpool, Newcastle, and Hull, is open to accept Agency for English or foreign; part expenses and commission. Apply, E., 32 Emery Street, Cambridge, stating full particulars (if foreign, Sole Agency desired).

KEEN. energetic Advertisement Manager and writer will be glad to communicate with any firm desiring to bring Proprietary articles before the trade and public; the advertiser is a smart writer, and knows the cost and value of all known methods of advertising, having just concluded an engagement with a first-rate tollet-soap house, where he did good service; highest references and scenrity if desired. 30.40, Office of The Chemist and debugger, 42 Cannon Street, E.C.

MISCELLANEOUS.

QUALIFIED Manager could introduce to employer a valuable Proprietary which has returned £2,000 a year. Terms and particulars from Thos. Tomlinson & Son, 9 New Cannon Street, Manchester.

TO Merchants and others.—Wanted quotations for burnt "Magnesite" and Crude Solution of Magnesium Chloride, 35° Banne, ex ship London, in quantities of 20 to 50 ton lots; also 1-ton lots of Brown Sugar of Lead. "Magnesite," Office of THE CHEMIST AND DRUGGIST, 42 Cannou Street, E.C.

TO BE SOLD, immediately, 10 ranges of excellent Chemists' Drawers, Orystal Cut Knobs Bevelled-edge Labels, highly French polished; 12 elaborate Dispensing-screens, with and without bottoms; a large quantity of Wall-cases, Counters, Window-backs, &c., new and second-hand. Also the complete fittings of a high-class shop, equal to new. Edwards & Co., only address, 106 Whitechapel, Liverpool.

CHEMISTS' ADVT. BLOCKS.

ED. J. BURROW (Ford Prizeman, Exhibitor Royal Society of Arusts) quoces artistle metal surface blocks of business premises at lowest cost. Also blocks of Chemists' specialities, and specially-designed Illustrations for advertisements or circulars submitted on receipt of detail of speciality. Seven years' experience in pharmacy.

BURROW, GROSVENOR STUDIOS, OHELTENHAM.